The Role of the State and Episodes of Growth and Stagnation in the Indian Economy, 1951 to 2004

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This thesis begins my making a critique of the orthodox approach to analysing economic growth. In particular using medium-run averages hides an important empirical reality of growth in developing countries. These are the episodes of growth and stagnation that actually characterise such growth. In addition there are severe empirical and theoretical problems with uncovering any such link through cross-country regressions. This thesis makes the case for using case-studies and looks at the specific case of India since independence. The thesis uses an empirical approach to define a number of episodes of growth or stagnation. The quantitative aspects relate to changes in average growth of GDP or its components, agriculture, industry or services, or at an even more disaggregated level such as heavy industry. The qualitative aspects relate to issues relevant for the sustainability of growth and stagnation, these include productivity, and the diversification and volatility of output growth. Episodes of growth or stagnation are here defined as a significant change in both the quantitative and qualitative nature of growth relative to a developing country's (India's) own history. This thesis finds that there are four aggregate episodes of growth and stagnation in post-Independence India. These are, the break in economic growth from colonial stagnation after 1951, industrial stagnation from 1965 to 1980, the increase in economic growth after the late 1970s/ early 1980s, and a continued episode of growth after reforms beginning in 1991. These are the four case studies focused on in the main empirical section of this thesis. In order to analyse these four episodes of growth and stagnation this thesis makes a case that there is a crucial role for the state either in promoting and sustaining an episode of growth, or the constraints on it leading to an episode of stagnation. These are firstly, the *financial* role of the state is in allocating the economic surplus to those able to invest productively. Secondly, the role of the state with regard *production* is to ensure financial resources so allocated are used productively, to either raise productivity in an existing market niche (learning) or upgrade to a higher technology market niche. Finally there are the institutions necessary to mediate the relationship between conflict and economic growth. In this thesis a broad institutional perspective is considered. A repressive state, an inclusive state or an ideological state can help reduce the negative implications of conflict on development. These three factors, the financial and productive roles of the state and institutions are used to frame the analysis of each of the four episodes of growth and stagnation in the post-independence Indian economy.

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Acronyms

ABVP Akhil Bharatiya Vidyarthi Parishad
ACC Associated Chamber of Commerce
AIDMK All-India Dravida Munetra Kazagham
BALCO Bharat Aluminium Company
BC Backward Caste
BDP Botswana Democratic Party
BJS Bharatiya Jana Sang
BKD Bhartiya Lok Dal
BMS Bharatiya Mazdoor Sangh
BJP Bharatiya Janata Party
BSE Bombay Stock Exchange
CM Chief Minister
CII Confederation of Indian Industry
CPI(M) Communist Party of India Marxist
CRR Cash Reserve Ratio
CV Coefficient of Variation
DFI Development Finance Institution
DMK Dravida Munnettra Kazhagam
FDI Foreign Direct Investment
FERA Foreign Exchange Regulation Act (1973)
FICCI The Federation of Indian Chambers of Commerce and Industry
FYP Five-Year Plan
GDP Gross Domestic Product
GDR Global Deposit Receipt
GDCF Gross Domestic Capital Formation
GFCF Gross Fixed Capital Formation
HALCOM Hindustan Aluminium Company
HEC Heavy Engineering Corporation
HINDALCO Hindustan Aluminium Company
HMBP Heavy Machine Building Plant
HMT Hindustan Machine Tools
ICICI Industrial Credit and Investment Corporation of India
ICOR Incremental Capital-Output Ratio
IDBI Industrial Development Bank of India
IDR Industrial Development and Regulation Act (1951)

IISCO Indian Iron & Steel Company
IMF International Monetary Fund
INTUC Indian National Trade Union Congress
IRS Increasing Returns to Scale
IT Information Technology
KMT Kuomintang (Taiwan)
LDCs Less Developed Countries
M+A Merger and Acquisition
MNC Multi-National Company
MRTP Monopoly and Restrictive Trade Practises Act (1969)
NICs Newly Industrialising Countries
NRI Non-Resident Indians
NSE National Stock Exchange
OBC Other Backward Caste
OECD Organisation of Economic Co-operation and Development
OLS Ordinary Least Squares
OPEC Organisation of Petroleum Exporting Countries
PC Planning Commission
PPP Purchasing Power Parity
QR Quantitative Restrictions
RBI Reserve Bank of India
R+D Research and Development
RSS Rashtriya Swayamsevak Sangh
SDP State Domestic Product
SEBI Securities and Exchange Board of India
SIDBI Small Industries Development Bank of India
SLR Statutory Liquidity Ratio
TFP Total Factor Productivity Growth
UF United Front (West Bengal)
UTI Unit Trust of India
VHP Vishva Hindu Parishad

Lakh 100,000
Crore 10,000,000

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Chapter I: Introduction

1. Hypotheses and the Research Approach

1.1. Hypotheses to be Tested and Justification for the Research Project

The study of economic growth has focused mainly on the short and long-terms. This thesis investigates the hypothesis that this methodology has led to profound empirical problems because it ignores divergent patterns of developing country growth over the medium-term. This thesis divides the post-Independence Indian economy into four episodes of growth and stagnation and tests whether this is a better and more useful empirical division than existing efforts. This thesis builds a theoretical political economy framework to understand the role of the state - regarding its financial, productive and institutional roles - to explain the conditions that allow the state to create productive rents to promote economic growth. This thesis tests whether this framework provides a better explanation for growth than existing frameworks.

There are many justifications for this research project. Understanding the drivers and inhibitors of economic growth is important for human welfare, in India in particular. Economic growth has a significant negative link with income-poverty in India and India remains mired in extremely high levels of absolute deprivation (Datt and Ravallion 2002). Economic growth has a close association with improvements in social indicators (Pritchett and Summers 1996). Existing empirical studies of economic growth have generated very poor results (Chapter III) and hence the analytical and policy conclusions drawn from such studies cannot be relied upon. This thesis attempts to build a theoretical framework that can cope with these theoretical and empirical problems and better explain growth as it has occurred in India since Independence. This thesis also contributes to a long-running debate on the proper role of the state in promoting economic development. An important justification of this thesis is to provide a critique of Neo-classical economics generally and in particular its emphasis on the desirability of a minimal state. This is very timely, the policy space available to LDC governments continues to shrink

under a dominant neo-liberal globalisation paradigm while other researchers attempt to promote and disseminate a viable alternative (Chang and Grabel 2004).

1.2. The Case of India

Studies of the Indian economy after 1951 have typically been structured around the nature of the overall policy regime; the colonial period until 1951, planning and state-led industrialisation 1951-1991, and liberalisation after 1991. Using this framework commentators have been prone to dramatic evaluations. K.N.Raj dismissed the entire planning period from the 1950s to the 1980s as the 'Hindu Rate of Growth'. Relative to high hopes prevailing in 1951 Herring argued that "India must be the most dramatic case of a failed developmental state" (1999:1).

This thesis begins instead with an empirical approach to define of episodes of growth or stagnation. *This thesis* looks beyond simple averages of GDP growth or rigorous statistical criteria when defining episodes of growth or stagnation. The difference for example between growth (1951 to 1965) and stagnation (1965 to 1980) is not distinguished by a change in GDP growth or policy regime. There was a structural break downwards in industrial growth and a decline in the ability of the state to effectively allocate the economic surplus to promote long-term sustainable growth. Several criteria, both quantitative and qualitative are used here in defining episodes. The quantitative aspects relate to changes in average growth of GDP or its components, agriculture, industry or services, or at an even more disaggregated level such as heavy industry. The qualitative aspects relate to issues relevant for the sustainability of growth and stagnation, these include productivity, and the diversification of output growth. Episodes of growth or stagnation are here defined as 'a significant change in both the quantitative and qualitative nature of growth relative to India's own history'. A number of alternative methodologies are introduced and contrasted to the method used here.

This thesis finds that there are four aggregate episodes of growth and stagnation in post –

Independent India. These are, the break in economic growth from colonial stagnation after 1951, industrial stagnation from 1965 to 1980, the increase in economic growth after the late 1970s/ early 1980s, and a continued episode of growth beginning in 1991. Growth is analysed at a disaggregated level and the sustainability of growth and stagnation considered. These are the four case studies focused on in the main empirical section of this thesis.

1.3. The Historical Case Study Approach

A basic problem with cross-country growth regressions is their implicit assumption that economic growth operates according to universal laws. There is evidence that the growth process differs significantly between different regions and countries and over time. The case study approach is justified in this thesis in part on the assumption that growth processes are not universal.

Chapter II shows that the growth experience of a typical developing country was one characterised by episodes of boom, bust and stagnation. Case studies are a better means than econometrics to identify and explain such episodes. Case studies are also a better mechanism to examine the effect of sharp shifts in economic policies and exogenous shocks. This is the lesson drawn from Rodrik (2003) who argues for a methodology that emphasises a general understanding of the approaches that generate growth rather than on the relationship between specific policies and economic growth.

Despite growth being an event that takes place over time most models of growth are ahistorical. Comparative historical research allows us to deal with multiple causal paths leading to the same outcome and different outcomes arising from the same factor/ factor combination. Historically informed case studies allow researchers to question the assumption of universality rather than be forced to assume it true a priori. Chapters V and VI show that in both 1951 to 1965 and 1979/80 to 1991 rapid public investment was in large part responsible for rapid economic growth. In 1951 to 1965 the presence of a

functioning Congress party enabled the state to mobilise and allocate domestic resources efficiently by overcoming the potential conflict inherent in such a development strategy. After 1979/80 the state was able to increase public investment only at the expense of the unsustainable growth of external and domestic debt. No such institution as the 1950s vintage Congress party then existed to enable the state to impose the burden of financing higher public investment on any particular group(s) in society. This reveals a superficially similar process (public investment led growth) had very different implications for sustainability. After 1991 public investment was sharply reduced but economic growth continued at a relatively rapid rate. The state after 1991 (Chapter VIII) was fairly successful in facilitating the private sector to mobilise resources for investment. This example shows a very different starting point in 1991 (reduced public investment-led growth) as compared to 1951 (increased public investment-led growth) leading to a very similar outcome in term of growth. Such examples would be missed by cross-country growth regressions, uncovering them is a task better left to case study evidence.

2. Key Theoretical and Empirical Contributions of this Thesis

This section briefly reviews some of the key theoretical and empirical contributions of this thesis. These are a focus on the medium-term, problems with cross-country growth regressions, complementarity and hysteresis in policy, the economic and political roles of the developmental state, the role of the state in finance, production and institutions, the role of conflict in economic development, measures/ descriptions of state capacities for conflict resolution and a new empirical means of classifying growth in post-Independence India.

2.1. Focus on the medium-term and Methodological Problems with Cross-country Growth Regressions

This thesis focuses on growth over the medium-term, something neglected by much analysis of growth. The medium-term is a longer period than either Keynesian models of stabilisation/ Solow growth models and a shorter period than for example the analysis of growth and colonialism, institutions, integration and geography.

This thesis opts for a case-study methodological approach in part as a consequence of theoretical and empirical problems with work currently being done on economic growth. The use of long-run averages typical of cross-country growth regressions since Barro (1991) hides an important empirical reality of the growth process in contemporary developing countries. Growth averages over a 25-30 year spell conceal the periods of stagnation, growth spurts, structural breaks, volatility and instability that actually characterise growth experiences in developing countries. The overall average is *not* a good summary indicator of growth performance when countries show clear episodes of growth and stagnation. Endogenous growth models demonstrate a clear theoretical link between policy and economic growth/ stagnation, in practise empirical results are very poor and not robust. This thesis shows that there are severe empirical and theoretical problems in uncovering any link from policy to growth through cross-country regression analysis. These include problems with the complementarity among policy variables, the relation between different theories of growth, the question of growth itself as an endogenous process, hysteresis effects, growth regressions and dynamics, and the assumption of universalism.

2.2. Complementarity and Hysteresis

This thesis emphasises that both complementarity and hysteresis are potentially important processes at work in the policy-growth relationship. There has been little discussion of hysteresis in econometric or qualitative work on economic growth. What studies that do

exist tend are dated, about developed countries and primarily concerned with unemployment not growth. This thesis proposes a more general model in which hysteresis effects can potentially play an important role. This thesis argues that there are three variables that must be in place to initiate and sustain an episode of growth. These variables relate to crucial roles for the state in finance (mobilising and allocating the economic surplus to those wishing to invest productively), and in production (ensuring the surplus is invested productively) and to institutions that are necessary to overcome the conflict inherently associated with economic development. Complementarity is an important explanation why none of these variables alone is likely to have a consistently significant causal impact on economic growth.

The importance of complementarity between these three variables means that hysteresis effects can have a very significant impact. If any of these variables fails an episode of growth can quickly turn into an episode of stagnation. In chapter VI we will see how the Indian droughts of the mid-1960s led to the electoral disintegration of the Congress party. This removed an important institution that was hitherto managing conflict in the Indian polity by incorporating dissent, providing mediation and allocating (political) rents relatively efficiently. Constraints on the subsequent ability of the state to allocate efficiently the (still substantial) resources that were mobilised throughout the 1970s locked India into a political economy of stagnation.

2.3. The Economic and Political Schools of the Developmental State

This thesis takes as a basic assumption that the state is crucial in promoting economic development and attempts to construct a more coherent political economy framework than currently exists. Most of the existing literature on the role of the state in economic development falls into two schools, the economic and the political. The weaknesses of the economic school include the limited scope of analysis, the lack of a political economy, and the (neglected) importance of complementarity. Weaknesses of the political school include the limited analysis of what the state should do, the relation

between different theories, and the lack of dynamics. A number of efforts have emerged to integrate these two schools; a critical review is made of some of these. An important drawback of some of these efforts is their very stylised and mathematical approach. This thesis attempts to make an integration focusing on the role of the state. The state has crucial economic roles in finance and production. The political context focuses on those institutions that can allow the state to overcome the conflict associated with economic growth.

2.4. The Theoretical Framework: The Role of the State (Finance)

This thesis provides a theoretical critique of the orthodox analysis of the role of finance in economic development. The case-studies of India later provide empirical support for this theoretical critique. Neo-classical economics holds there is no problem in transferring the surplus. Profit maximising firms will compete for savings and ensure they are allocated efficiently to an optimal portfolio of investment projects. The surplus will be automatically allocated to those best able to use it via the pursuit of self-interest among relevant actors. The neo-classical theory is of limited relevance in a developing economy where surplus allocation is a profound political question. Those to whom the surplus is allocated will continue to accumulate and become future capitalists, those saving from income will be left behind. The current allocation of the surplus will have long-term path dependency in class formation. A further critique of the neo-classical model is the black box at the centre of its analysis, the model assumes financial intermediaries automatically emerge. In developing countries the state is likely to play the most important role in facilitating the transfer of the surplus. The surplus can be transferred through the banking system, taxation/ subsidies, influencing the rate of profit and hence retained earnings and influencing patterns and levels of the flow of international capital. An 'efficient' allocation of the surplus by the state is unlikely once we consider political economy factors. Groups may block the mobilisation and allocation of the surplus to a capitalist class even if as in neo-classical theory they are maximising their interest income and capitalists maximising profits and growth. The state may tax

individuals and use the money to subsidise emerging capitalists, but there can be no credible contracts or enforceable commitments that the state will then be able to tax those capitalists to the benefit of the original taxpayers. Existing powerful interest groups may block the introduction of 'efficient' transfers because it may simultaneously affect the distribution of political power. The prospect of the state being able to tax a newly created capitalist class may even be reduced once they have accumulated and gained added political leverage over the state and other classes in society.

These various complementary roles of the state in terms of finance cannot be measured or analysed using cross-country regression analysis. To transfer resources the state could utilise subsidies (which indicate an enlarged fiscal role for the state), by tax incentives (which imply a reduced fiscal role for the state) and/ or by policies that raise the profitability of private sector firms such as labour repression (which implies no fiscal role for the state). Such polices are complementary ways of achieving the same fiscal outcome and hence there is no reason to assume why for example the 'share of government expenditure in GDP' should have any particular sign or significance in a cross-country growth regression.

2.5. The Theoretical Framework: The Role of the State (Production/ Learning)

This thesis provides a theoretical critique of the orthodox analysis of the role of production/ learning in economic development. The case-studies of India later provide empirical support for this theoretical critique. The state has a crucial role in production because of market failures that exist in learning. Neo-classical economics assumes innovation takes place in advanced countries and learning in LDC's is no more difficult than selecting the most appropriate among innovations. Neo-classical analysis of technology transfer assumes all firms operate with full knowledge of all possible technologies, to which they have equal access through imports based on a known market price. There are assumed to be no tacit elements in the transfer, no learning costs or need to make adaptations. This thesis assumes that much technology is tacit and to effectively

master it extensive experience in using it is necessary. The process of learning to reach the efficiency frontier is slow, risky, and costly. Learning by doing may imply a lengthy and unpredictable period of losses as firms learn and adapt technology to make it more appropriate to developing country conditions. In theory private capital markets could fund firms through the period of learning. In practise uncertainty, risk and illiquidity mean private capital will be reluctant. This is especially relevant when economies are industrialising and the economy is undergoing profound structural changes, where past history is a poor guide to the future.

These various market failures may generate a need for intervention in both factor and product markets. In factor markets deliberate government efforts to direct resources to particular activities creates rents that may both induce and facilitate learning by private actors. There are important pre-conditions for rents to promote learning. Rents must be allocated in a contingent manner, withdrawn from those firms failing to learn, export or reduce costs. The bureaucracy must be competent enough to allocate rent ex-ante to potentially dynamic capitalists or ex-post strong enough to withdraw them from failing capitalists. The relation of the state to various classes is important. To capitalists to enforce discipline, and ensure rents are contingent on desired performance. The relation of the state to other non-capitalist classes must be such that they don't mobilise and dissipate efficient rents towards non-productive areas.

2.6. The Theoretical Framework: The Role of the State (Institutions)

This thesis provides a theoretical critique of the orthodox analysis of the role of institutions in economic development. The case-studies of India later provide empirical support for this theoretical critique. This thesis takes as a starting point that economic growth is an inherently conflictual process, involving unprecedented changes in the pattern of property rights and income distribution. There is a good deal of existing literature looking at the effect of institutions on promoting economic growth. This thesis looks at the related but under-researched topic of how institutions can mediate the

(negative) relationship between conflict and economic growth. The existing literature is very limited and biased towards looking at those institutions compatible with neo-liberal economic theory, in particular property rights and democracy. Some scholars have argued that a repressive state is able to exclude (insulate the state) or crush groups that would oppose growth and industrialisation. This thesis agrees but goes further and argues a more inclusive institution building strategy is also possible. An important means of securing legitimacy for a given (re)allocation of rights may be in compensating the (potential) losers rather than repressing them. Identifying those requiring compensation, minimising the transaction costs associated with such transfers, and minimising rent-seeking by other entities requires a state that is more 'embedded' than 'autonomous'. This thesis departs from authors such as Evans (1995) who argue that the concept of embedded autonomy implies dense links with industrial capital and an exclusionary arrangement with other groups. This is insufficient, there are many other potentially influential groups in society whose opposition may at least have to be neutralised to permit a policy of sustained industrialisation. A dominant political party may provide just such an inclusive and embedded institution. This thesis examines the roles of the Congress party (particularly in its Nehruvian years, 1951-64) as an institution that was able to incorporate, mediate and buy-off opposition. A third institution to overcome the conflict associated with economic development is ideology. Even groups excluded from development or suffering from rising levels of inequality may acquiesce in their own exclusion for ideological reasons.

2.7. Development and conflict

Conflict is widely ignored in Neo-classical analysis of economic development. This thesis takes as a basic assumption that economic development is a conflictual process. Economic development is concerned with shifting resources from low to high productivity areas. The mobility of some assets will be limited, owners will then face problems of obsolescence and unemployment. Those having sunk investments in physical capital, skills, contractual relationships, and political patronage are likely to

resist change. Work by several authors has shown conflict to be bad for economic growth. This thesis critiques and expands on work by Easterly and Rodrik that the institutions of property rights and democracy can reduce conflict. Chapter VI shows how increased conflict after the mid-1960s forced the government to politicise previously productive subsidies. The attempt to manage conflict locked India into a political economy of stagnation after 1965.

2.8. Measures/ Descriptions of State Capacities

This thesis proposes an objective measure of measuring the conflict resolution capacities of the state. In doing so it draws on a range of sources. From Rowthorn (1977) the idea that conflict between labour and capital and the role of profits/ income distribution is important. From Rudolph and Rudolph (1987) that conflict can be society-centred and be manifest through demand groups. And from Kohli (1990) that the capacity of the state to govern is both influenced by and in turn influences conflict. We need a more encompassing measure of the conflict resolution capacity of the state than these efforts. This measure is provided by state budgets. Budgetary allocations in which investment, tax revenue, national savings are rising are an indication that conflict is being successfully managed. Section 2.6 has argued discipline is necessary to induce learning; hence diversification and productivity growth are also signs that conflict is being successfully managed.

Potentially the most important form of conflict is latent. This may not erupt into street protest or political turmoil but may induce the government to manage it through the budget. High levels of expenditure, subsidies, over-manning in state enterprises, stagnant savings and tax revenue, declining levels of investment and few signs of learning are objective signs the state is paying more attention to conflict management than to development. Chapter VI shows that conflict in India erupted in the mid-1960s and can be measured by conventional indices – strikes, demonstrations, and political violence. In response there were drastic changes in the state budget, higher subsidies and transfers at

the expense of investment, tax revenue and savings. By contrast a massive increase in state fiscal deficits, subsidies and unproductive transfers partly funded by the growth of external debt was managing latent conflict during the 1980s (see Chapter VII). The state was unable to control conflict through inclusive, repressive or ideological means so bought it off through the state budget. The budget for this period captures an upsurge of latent conflict that would be missed by more conventional measures such as strike activity or demonstrations.

2.9. Empirical Contributions to the Study of Post-Independence India

Chapter II shows that an analysis of the medium term is crucial in understanding growth in developing countries. This chapter shows that the growth experience of a typical developing country is one characterised by episodes of boom, bust and stagnation. Such patterns are inevitably missed by the short or long-term perspectives typical of empirical growth studies. Chapter III shows that there are four distinct episodes of growth and stagnation in post-independence India and uses both qualitative and quantitative criteria to define an episode of stagnation. This goes beyond existing research which tends to use more rigorous statistical techniques and hence misses this fourfold division. Existing research on India has focused unevenly on certain of these episodes, emphasising either the factors generating growth or stagnation and to a lesser extent whether such growth/ stagnation is likely to be sustainable (see Chapter III). There is big and varied literature looking at the episode of stagnation after 1965. The episode of growth after 1979 as yet is mainly a statistical exercise though there are some signs of scholars attempting to explain and draw wider conclusions. There is a huge literature on the reforms of 1991, much of this assumes not explains why 1991 was significant and simply amounts to a before and after study. There is also though a growing recognition that aggregate growth didn't change and productivity growth slowed after 1991. There are few attempts to integrate these two approaches. There are other specific topics which have attracted the attention of researchers looking at episodes of growth and stagnation. These notably include the effect of the Green Revolution on growth in agriculture and the reasons for a sharp

upward jump in agricultural growth in West Bengal in the 1980s. There is a small literature looking at episodes of growth and stagnation and its likely sustainability at state level, the break from stagnation in Kerala during the 1990s being the most prominent example. There is no existing literature in India which examines all four of the episodes identified here in a coherent framework. The unified theoretical and empirical approach in this thesis allows us to make a useful comparative analysis on factors such as the role of the state, foreign capital, public investment and so on.

3. Structure of Thesis

Chapter II examines the inherent problems associated with using cross-country regression analysis to examine the determinants of economic growth, the causes of this problem and finally outlines the proposed model to be used in this thesis, relating its advantages to the problems outlined in previous sections. Chapter III outlines the definition of an episode of growth or stagnation used in this thesis and then presents the quantitative and qualitative data that is used to define and illustrate the three episodes of growth and one episode of stagnation analysed here. Chapter IV argues that there are three complementary roles for the state in promoting economic development. These are the financial, productive and institutional roles. Chapter V analyses the episode of growth between 1951 and 1964, Chapter VI the episode of stagnation between 1965 and 1979/80, Chapter VII the episode of growth between 1979/80 and 1991, and chapter VIII the (continuing) episode of growth after 1991. Chapter IX concludes with an examination of the implications for economic principles and policy of this thesis, examines possible extensions of this research agenda, and justifies areas that the thesis didn't explore.

Chapter II: A Methodological Critique and Framework

1. Introduction

This chapter makes a critique of orthodox investigations of economic growth. Firstly, it shows that the use of averages hides an important empirical reality of the growth process in developing countries. These are the periods of stagnation, growth, structural breaks, volatility and instability that actually characterise growth in developing countries. The second section notes that policy provides the most straightforward explanation for episodes of growth and stagnation. If the policy-growth hypothesis were true we would expect to see that episodes of growth and stagnation were strongly correlated with changes in policy and that the results were causal. In practise there are severe empirical and theoretical problems with uncovering any link from policy to growth through cross-country regressions. These include complementarity among policy variables, the relation between different theories of growth, the question of growth itself as an endogenous process, hysteresis effects, growth regressions and dynamics, and the assumption of universalism in cross-country regressions. The final section outlines an alternative model to explain episodes of growth and stagnation emphasising the role of the state and relating it to these theoretical and empirical problems.

2. Episodes of Growth and Stagnation in Developing Countries

The analysis of growth in developing countries suffers from a theoretical vacuum and an empirical problem. Theoretical perspectives on growth either tend to look at the very long-term, differences in average growth rates over fifty or a hundred years or the short-term, to explain changes/ volatility in growth over less than five years. Long-term growth frameworks include (among many) the nature of the colonial state (Acemoglu et al 2001), factor endowments (Sokoloff and Engerman 2000), malaria (Gallup and Sachs

2000), geography (Gallup and Sachs 1999), the organisation of distributional coalitions (Olson 1982), and ethnic divisions (Eastlery and Levine 1997). Short-term frameworks include (among many) volatility in the terms of trade (Lutz 1994), international capital flows (Wade 1998) and fiscal policy (Easterly and Rebelo 1993). There is an empirical problem generated by this theoretical vacuum. This section shows that using the averages typical of cross-country growth regressions since Barro (1991) hide an important empirical reality of the growth process in contemporary developing countries. Growth averages over 25-30 years conceal the periods of stagnation, growth spurts, structural breaks, volatility and instability that actually characterise growth experiences in developing countries.

2.1. The Historical (Long-run) Experience of Developed Countries

Long-run averages of growth are a reasonable approximation of historical patterns of growth in the now developed countries. The steady-state assumptions of Solow (1957) for example are a good guide to the historical experience of the US. The US has experienced steady growth (Great Depression aside) since 1870 despite large shifts in policy (Kenny and Williams 2001). A simple linear trend to the natural log of per capita US GDP between 1880 and 1929 gives a forecast for 1987 that is off by only 5%. Output is captured well by a growth process with a constant mean (Jones 1995a). The idea of convergence to steady-state growth also makes sense when looking at the small set of now developed countries whose historical growth performance showed strong (club) convergence (Maddison 2001). Despite large differences in policy within the OECD between 1870 and 1989 two-thirds of the present high-income countries had GDP growth rates within 0.2% of the US.

2.2. The 'Take-off' into Modern Economic Growth: An Insufficient Theoretical Concession

Within traditional theorising about growth in developing countries the only concession to the universal applicability of growth theory has been the idea that growth is dichotomous. This is the explicit notion of much literature concerned with the 'Big-Push' or 'Take-Off' into self-sustained modern growth. A relevant practical example is the heterodox verses orthodox debate over how the Korean government launched its economic miracle in the early-1960s[1]. There has been a great deal of research on the political, economic and social conditions of what generated the economic take-off but very little on what then sustained growth. One strand of the debate revolves around why the state became developmental in the early-1960s and the literature assumes that this same state was the one able to launch later initiatives such as the Heavy and Chemical Industrialisation programme in the late-1970s that sustained growth. Another strand of the debate argues that the state made a decisive shift towards outward-orientation in the early-1960s and this then sustained subsequent growth. The implicit assumption in this literature is that growth is something that has to be started then is automatically sustainable. In practise growth must also be sustained (potentially a different question) and can come to a grinding halt.

2.3. The Historical Experience of Developing Countries

Since Barro (1991) theoretical and empirical research on growth has focused on averages over 25-30 years. A decade of ten-percent growth followed by another of zero-percent drops into Barro-type regressions with the same average as two decades of five-percent growth. This problem has very real implications for the analysis of growth in developing countries. Brazil enjoyed growth of over four percent between 1965 and 1980, and stagnated during the 1980s. An average doesn't distinguish between average growth in

[1] E.g. the legacy of Japanese colonialism (Kohli 1994), the class structure (Khan 200d), a shift to outward orientation etc (World Bank 1993).

Brazil of 3.1% between 1960-92 and the importance of the structural break. Per capita GDP in Cote D'Ivoire increased by 3.1% p.a. between 1960 and 1980 and declined by an average of 4.1% p.a. between 1980 and 1992. Ignoring the structural break average growth was 0.22%, almost the same as Senegal (0.18%) which stagnated throughout the whole period (Pritchett 2000).

Growth averages conceal the periods of stagnation, growth spurts, structural breaks, volatility and instability[2] that actually characterise growth experiences in developing countries. The overall average is *not* a good summary indicator of growth performance. Countries show shifts in growth rates, often in clear episodes, such as the slowdown in Latin America in the 1980s. Pritchett (2000) finds that GDP growth is not well characterised by a single exponential trend. For forty percent of LDC's the R^2 on such a trend is less than 0.5, suggesting that shifts and fluctuations are the dominant feature of the evolution of per capita GDP. Pritchett (2000) finds six distinct patterns of growth, before and after statistically chosen structural breaks, steep hills, hills, plateaus, mountains, plains and accelerations. The correlation of per capita growth in 1977-92 and in 1960-76 across 135 countries is only 0.08 (Easterly and Levine 2001: 195). A regression of growth in 1975 to 1989 against growth in 1960 to 1975 produces an R^2 of only 0.12 (Easterly et al 1993). Temple (1999:116) finds a similar patter for developing countries between 1960-75 and 1975-90. For the twenty-five countries with data, Maddison (1995) finds the correlation of growth between 1820-70 and 1870-1929 is only 0.097.

Growth rates in developing countries are highly volatile whereas many of the causal factors (policies and institutional factors) change only slowly. The correlation of investment share in GDP in 1977-92 with investment share in 1960-76 is 0.85. The variance of per capita GDP growth within country is 0.73, in contrast for other growth determinants the within country variance is very low, only 0.22 for investment rates, 0.07 for level of education and 0.02 for population size. The correlation across 1960-76 and

[2] (Solow 2001:286) argues this is not a problem, growth theory should be more explicitly concerned with the supply side of the macroeconomy (potential output) while deviations are demand driven (actual output).

1977-92 for primary enrolment is 0.82, for secondary enrolment is 0.91 (Easterly and Levine 2001). Other growth determinants have strong persistence such as measures of democracy and civil liberties (Barro 1999:166; Przworski et al 2000) and inequality, (Deininger and Squire 1996).

Rodrik (1999a) focuses on the growth instability of LDC's over the last couple of decades. Some countries he finds were hardly affected by the volatility in their external environment during the second half of the 1970s others suffered negative impacts out of all proportion to the direct economic consequences of these shocks. Between 1960 and 1973 the growth performance in Latin America and the Middle East was equal to and superior in some respects to East Asia. Latin America for example surpassed East Asia in terms of TFP. The East Asian miracle therefore rests on the collapse in productivity and output growth in the Middle East and Latin America after 1973, while growth in East Asia was sustained.

There are very striking instances of growth accelerations and growth collapses among developing countries. Rodrik (2003) finds 64 cases of growth accelerations since the 1950s. These he defines as an increase in per-capita growth of 2.5% relative to the previous five years sustained over at least ten years. Such accelerations include the well-known cases, Taiwan 1961, South Korea 1962, Botswana 1966, Brazil 1966, Singapore 1968, Mauritius 1969, China 1978, and Chile 1985, and also less well-known cases such as Egypt 1976, and Pakistan 1977. Berthelemy and Soderling (2001) find 14 examples of episodes of growth in Africa between 1960 and 1996[3]. Examples include South Africa between 1960 and 1974 (5.1%), Cote D-Ivoire 1960 to 1978 (9.5%), Gabon 1965 to 1976 (13.1%), and Namibia 1961 to 1979 (6.4%). Mkandawire (2001) notes that ten countries in Africa between 1967 and 1980 had growth of more than 6% p.a. These include Gabon, Botswana, Congo, and Nigeria and those without mineral resources such as Kenya and Cote D'Ivoire. These fast growers were outperforming both Malaysia and Indonesia.

[3] Defined as a ten plus year period in which the five-year moving average of annual GDP growth exceeds 3.5%.

Hausmann et al (2004) conducted a very broad empirical test to locate episodes of growth. They locate an episode of growth by finding the year that maximises the F-statistic of a spline regression with a break at the relevant year. For countries with a number of consecutive years for which these criteria of growth are met they choose the best fit for a single starting date. Countries can have more than one instance of growth acceleration as long as the dates are more than five years apart. This filter yields 83 growth accelerations. They find this method captures the most well known episodes[4] such as China in 1978, Argentina 1990, Mauritius 1971, Korea 1962, Indonesia 1967, Brazil 1967, Chile 1986, and Uganda 1989. They find the magnitude of accelerations to be striking. Their definition is conditional on a growth acceleration of at least 2% p.a.; the average acceleration though was 4.7% p.a. There are many episodes with growth of 7% or more such as Ghana in 1965 (8.4%), Pakistan 1962 (7.1%), and Argentina 1990 (9.2%). The occurrence of an episode is quite common; of 110 countries in their sample between 1957 and 1992 54.5% had at least one episode of growth and 20.9% two. The occurrence is also common across space 21 episodes occurred in Asia, 18 in Africa, 17 in Latin America, 12 in Europe and 10 in the Middle East and North Africa.

3. Public Policy, Endogenous Growth Models and Empirical Problems

This section shows there is a strong theoretical link between policy change and episodes of growth and stagnation. The empirical evidence for the link is however very weak. This holds in a general sense and also for four specific examples, fiscal policy and the role of the state, investment, education, and R+D.

Policy provides the most straightforward explanation for episodes of growth and stagnation. If the policy-growth hypothesis were true we would expect to see firstly, that episodes of growth and stagnation should be strongly correlated with changes in policy and the result be causal. A typical example is from the World Bank (1994), which

purports to show that 'strong adjusters' (policy) in Sub-Saharan Africa during the 1980s experienced increased rates of economic growth (an episode of growth).

The supposed empirical link between policy and growth has been enhanced by theoretical developments, in particular endogenous growth models. The preceding Solow growth model had predicted that policy (investment) would impact on the level not the long-run rate of growth, so would have at most only a transitional effect[5]. Endogenous growth models by contrast were motivated by the lack of convergence to steady-state among developing countries and the inability of traditional models to account for differences in income and growth rates across countries (Romer 1986:1008-13; Pritchett 1997). "A theory of economic development needs mechanics that are consistent with sustained growth and with sustained diversity in income levels." (Lucas 1988:41).

Arrow (1962) modelled the productivity of a given firm as an increasing function of cumulative output in the industry. Romer developed an equilibrium model of technological change in which optimising agents drove long-run growth through the accumulation of knowledge. In his model the creation of knowledge by one firm has a positive external effect on the production possibilities of other firms (1986:1003). Adding to capital and labour a third input[6] generates externalities, allows constant returns to scale at the level of the individual firm and rewards factors with their marginal productivity (i.e. preserves the competitive solution). Due to the externality these models yield a sub-optimal equilibrium/ market solution. This in turn generates a potential role for the state. Policy is shown to effect growth through its impact on the incentives to accumulate capital and knowledge and so generate technological change.

[4] The dates differ slightly from Rodrik (2003).
[5] I am not aware of any study that models episodes of growth and stagnation as transitional Solow growth paths.
[6] Often education (Romer 1986; Lucas 1988).

3.1. The Robustness of Empirical Results

While the link between episodes of growth and stagnation and changes in policy seems intuitively reasonable and is supported by recent economic theorising there is very little empirical evidence for this proposition. Levine and Renelt (1992) took a number of variables commonly used in econometric growth analyses and ran them in thousands of regressions with different conditioning sets of other variables – judging them robust if they remained significantly related to growth. Their tests excluded variables that are only correlated with another factor that has a causal relationship with growth, i.e. those factors with an indirect impact on growth. They found only investment was robustly related to economic growth. This analysis is perhaps unnecessarily pessimistic. There will be a natural tendency for the sign of a coefficient to not be robust across a set of regressions representing different combinations of other variables if the coefficient is collinear with variables suggested by other growth theories[7]. Allowing for this problem Sala-i-Martin (1997) ran two million regressions and found 21 robust variables. Among variables surviving are region (Africa), primary goods orientation (including agriculture and mineral exporting), latitude (near equator), political and civil rights, the rule of law, war, revolutions and coups, investment, foreign exchange variables, country's degree of capitalism, and number of years the economy can be classified as open. There is limited relevance of this finding for the growth-policy hypothesis, many of these variables can be considered structural. This reduces the potential role of economic policy and implies the growth process will be something of a random walk around a mean, with the mean set by those structural factors[8].

Even those factors many would accept as self-evidently related to economic growth, the role of the state, investment, education and R+D have an ambiguous empirical relation to economic growth within cross-country regression analysis. The relevant theory and

[7] Also (Brock and Durlauf 2001:235).

[8] See (Easterly and Levine 1997; Kenny 1999). The meaning of structural refers to a continuum from country-specific time-invariant variables such as latitude (Hall and Jones 1999), geography (Lal 1998), access to the sea (Gallup and Sachs 1999) initial conditions, (Kenny 1999) to quantities that evolve slowly such as population size and human capital (Barro 1991) and trust (Knack and Keefer 1997), and finally to highly volatile series such as black market premia, capital inflows, and terms of trade.

empirical results concerning these four policy variables are analysed in turn.

3.1.1 Fiscal Policy and the Role of the State.

Theory linking fiscal policy to economic growth is very clear. King and Rebelo (1990) developed a model where modest variations in tax rates are associated with large variations in long-run growth rates, with both stagnation and growth miracles. Barro (1990) extended a simple production function to include productive government expenditure. Production here involves decreasing returns to private inputs if complementary government inputs (such as enforcement of property rights) do not expand in a parallel manner. There is an optimal level of government expenditure that maximises the growth rate. With a distortionary source of revenue such as an income rather than a flat rate tax decentralised choices of consumption and savings lead to sub-optimal growth. Rebelo (1991) developed a model showing that an increase in the tax rate lowers the return to private investment and hence permanently lowers the rate of investment and economic growth.

Barro (1991) measured government intervention as the ratio of real government consumption less spending on education and defence to real GDP. He found a significant negative association between this variable averaged over 1970-85 and real growth 1960-85. More generally as estimated by Levine and Renelt (1992) there is no robust relation between growth and the ratio of total government expenditure to GDP, government consumption expenditure, capital formation, or educational expenditure. The coefficient in Barro (1991) measure becomes insignificant when Levine and Renelt (1992:951) include the ratio of exports to GDP in the conditioning set[9]. There is good theoretical reason for the relation between government expenditure and growth to become more complex once trade openness is considered. Openness may increase the cost of government intervention by raising the elasticity of taxed factors (Slemrod 1995:405). Rodrik (1998) finds a positive correlation between a country's exposure to international

[9] Also the standard deviation of domestic credit growth.

trade and the size of its government. A possible explanation he suggests is that the government plays a risk-reducing role in economies exposed to a significant amount of external risk.

There are severe empirical problems with any attempt to quantify the role of the state. Cross-country growth regressions typically regress the rate of economic growth on the level of government expenditure. Keyensian demand management and automatic stabilisers imply that government expenditure will increase with poor economic performance. This will generate a spurious negative relation between the 'size' of government and economic growth. Governments also influence the economy in many ways that do not involve expenditure, such as regulation. Tax exemptions and fiscal transfers may have identical effects but have different implications for the measured size of government. The demand elasticity for government services is typically greater than one (Wagner's Law), the level of government expenditure would then be determined endogenously (Slemrod 1995).

3.1.2. Investment and Economic Growth

Investment was the one factor Levine and Renelt (1992) found robustly related to economic growth. The average investment rate is frequently used as an independent variable in growth regressions though there remain severe theoretical problems in identifying causality.

De Long and Summers (1991) found a positive correlation between investment, specifically in machinery and equipment and productivity. They argue that studies using aggregate measures of investment (including structures) underestimate the contribution of investment to growth. The positive relationship they show holds for countries with 1960 levels of GDP per worker greater than 25% of the US level, for the period 1960 to 1985. They argue the result is causal, robust, strong and statistically significant. While transport investment reflects differences in need caused by urbanisation, geography and

population density the equipment aggregate (comprising electrical and non-electrical machinery) is more directly correlated with the manufacturing sector[10]. De Long and Summers (1991:470) find a strong and negative correlation between equipment prices and growth, and argue the association of growth with high quantities and low prices of capital equipment is strong evidence that equipment investment drives growth. If high rates of investment were a consequence it should be the case that because of increasing demand the price of equipment would be high in rapid growth economies (1991:473). Lee (1995) finds a positive and significant relation between the ratio of imported to domestically produced capital goods for a large cross-country regression between 1960 and 1985.

Between 1950 and 1988 the composition of investment in the OECD shifted sharply. The increase in the share of investment in producer durables is especially marked, from 3 or 4% to more than 7% of GDP in France, Germany, the US and the UK and in Japan from 3.5% to 9%. Growth in OECD countries however shows no equivalent upward trend over this period. Blomstrom et al (1996) find an inverse causal relation between growth and investment that is robust to the inclusion of other determinants of growth. Growth they find induces subsequent capital formation for a sample of 101 countries between 1965 and 1985. This finding is supported by Rodrik (1997). The traditional use of instruments as a 'solution' to issues of causality is problematic. "In general there is a shortage of good instruments. So many variables could be used to explain growth that it is difficult to find variables that are not only highly correlated with the endogenous variable but can also be plausibly excluded from the regression." (Temple 1999:128).

A particular theoretical development relevant for the policy-investment relation is that of 'credibility'. Rodrik (1989) argues it is not policy so much as 'credible' policy changes that will be likely to promote growth in the private sector. Credibility though is a very difficult concept to test using cross-country regression techniques. Athukorala and Sen (2002) agree that theoretically credibility was an important influence on the outcome of

[10] Variation in relative equipment prices gives a distorted measures of the investment share in GDP. The tendency for the relative price of equipment to fall with rising productivity may generate a spurious

reform in India after 1991. They are unable to construct any viable proxy measure and instead add a dummy variable for post-1991 to gauge if reforms have influenced investment/ growth beyond those variables included in their regressions. The dummy is positive and significant. The exact mechanism remains un-theorised and the coefficient captures everything specific to the 1990s not just credibility. Disaggregated components of what comprises credibility, particularly uncertainty, have received more attention. Uncertainty has been widely theorised as having an influence on the growth rate through its effect on investment (Rodrik 1991). In an uncertain environment entrepreneurs may be reluctant to commit resources to projects characterised by large, sunk costs (Dixit and Pindyck 1994). Measuring uncertainty remains a problem; various proxies have been used by scholars all of which remain unsatisfactory. Barro (1991) used the number of coups and revolutions Easterly and Rebelo (1993) the standard deviation of inflation and Ojo and Ashikoya (1995) the mean and variance of inflation and exchange rate instability. Dollar (1992) showed that real exchange rate instability has a significantly negative coefficient on growth between 1976 and 1986 for 95 developing countries. Lutz (1994) found volatility in the terms of trade for developing countries had no effect on the average growth rate of GDP. Bleaney (1996) uses measures of poor macroeconomic management as proxies for uncertainty. Inflation, persistent budget deficits, and poor exchange rate policies he argues will create uncertainty about absolute and relative prices and the real interest rate; so discourage investment by increasing the option value for delaying investment projects. Brunetti et al (1998) proxied for uncertainty by the reliability of contract enforcement, the extent of bureaucratic corruption, the danger of policy reversals, and the predictability of changes in laws and policies. The indicator they found to be significant in a standard regression model, controlling for the usual variables. Specifically for India Athukorala and Sen (2002) use the three-year moving average of standard deviations of changes in output and the rental cost of capital as measures of uncertainty and as determinants of investment. Neither is significant and both variables are dropped from their final equation.

All these studies are testing proxies that are at best weakly correlated with uncertainty.

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correlation unless corrected for.

There is no particular reason why for example exchange rate or interest rate instability should be associated with uncertainty if agents can hedge foreign currency dealings, insure themselves or pool risk. These measures may capture at most contemporaneous uncertainty but uncertainty is more properly considered a forward-looking concept. Studies using proxies for the security of property rights or corruption focus on a very narrow aspect of uncertainty. Such proxies may reflect the more narrow concerns of (foreign) experts but not give an overall indication of uncertainty relevant for (local) entrepreneurs. Unpredictable changes in laws may be irrelevant if such laws are not implemented. Discretionary and easily corrupt bureaucracies may reduce instability if they enable entrepreneurs to bribe their way around inconvenient changes in laws: - to grease the wheels of the administration, (Leys 1965).

3.1.3 Education and Economic Growth

Intuitively education has an evident link with economic growth; again there is no clear empirical link. Pritchett (1999) finds a robust and *negative* correlation between higher school enrolment and educational attainment and TFP growth in developing countries. Between 1960 and 1985 educational capital grew faster in sub-Saharan Africa and South Asia than in East Asia (1999:3) even though the latter region grew more rapidly. The failure of micro and macro evidence to show a positive return is he argues due to an institutional environment that ensured new skills were devoted to privately remunerative but socially wasteful activities (1999:38), and to policies that retarded the demand for skilled labour (such as protectionism that slowed down technological diffusion from abroad). Bils and Klenow (2000) find only a *weak* relation between initial schooling and subsequent economic growth, even allowing for the indirect effects of schooling in permitting greater technology absorption. They find that the relation is either largely spurious, the expected return and incentive to acquire education increases in an expanding economy when the skilled wage is growing rapidly, or reflects omitted variables related both to initial schooling rates and subsequent economic growth rates.

A particular problem for regression analysis is finding a satisfactory measurement of human capital (Mankiw et al 1992:418-9). A large part of investment in education takes the form of forgone earnings by students (which vary positively with the student's initial level of human capital). In addition explicit spending on education takes place by the individual, family and state. Another problem is that not all expenditure on education is intended to generate productive human capital (for example the teaching of philosophy verses literacy). The typical proxy used in many cross-country regression equations is the share of the working-age population in secondary school. This fails to measure the quality of education, and the learning-on-the-job that takes place in the workforce[11]. Education could be treated as being relevant to facilitate technological transfer and learning which would suggest that the stock, rather than growth rate of 'education' is the important variable driving economic growth. Sachs and Warner (1997:185) argue there is a *positive* and causal economic relation between education and economic growth but argue it will be intrinsically hard to measure and test using econometrics. They suggest that human capital development is a result of positive externalities in the family and community - literate parents are more likely to raise literate children. The growth of human capital is likely to be related to the initial stock of human capital so there is a possibility of a low-level poverty trap, where one low human-capital generation succeeds another. Growth will be high in countries with an intermediate, rather than high or low stock of human capital. This non-linear relationship is likely to be missed by orthodox cross-country regressions.

3.1.4. R+D and Economic Growth

Theoretical work such as Romer (1986) and intuition suggest there is a clear link between R+D and economic growth. Again, this link has not been uncovered by orthodox empirical analysis. Between 1950 and 1988 the total number of scientists engaged in R+D in the US increased from 200,000 to over 1,000,000. A similar pattern is evident in Germany, France and Japan. Measured by R+D expenditure the results are similar (Jones

[11] The latter forms the centrepiece of Arrows' (1962) model of growth.

1995:13). Despite this extra R+D there has been no permanent increase in growth. Between 1900 and 1987 US growth rates fluctuated around a constant mean for the entire period, in Japan growth fluctuated around a constant mean until post-1945 after which it jumped upwards then slowly declined. In other OECD countries growth showed little or no persistent increase between 1950 and 1988, for some countries there was even a downward trend.

4. And Theoretical Problems...

Recent theorising on endogenous growth models is clear that there should be a strong link between policy and growth. This section shows that any empirical link between changes in public policy and changes in growth rates will be intrinsically difficult to isolate using traditional cross-country regression analysis. There are severe theoretical problems. These include complementarity among policy variables, the relation between different theories of growth, the question of growth itself as an endogenous process, hysteresis effects, growth regressions and dynamics, and the assumption of universalism.

4.1. Complementarity among Policies

There is very little empirical work on the relation between variables in the same regression. Cross-country regressions have become theoretical melting pots, containing level (e.g. infrastructure proxies) and growth (e.g. investment) indicators. The same regressions are crowded with both the deeper causes of economic growth (institutions and geography) and the proximate causes (accumulation and productivity) without any clear indicator of how the former affects growth through the latter. Policy variables typically enter the right hand side of regressions separately without diagnostic tests allowing for any but very limited interaction among them. Theory does however suggest complementarity is important. For example investment may be only causally related to growth in the presence of strong property rights, reforms to growth if considered credible

or when correctly sequenced. There is some limited empirical support for the importance of complementarity between policies. Mosley (2000) finds little evidence of complementary effects on growth of inflation, openness and the government share, but when corrected for sequencing the coefficient(s) increases and becomes significant[12]. Such concerns motivated Easterly (2001a) to argue for a renewed emphasis on aid conditionality, dispersing aid only to those countries implementing a complementary and concurrent cluster of 'good policies'.

Econometrics has coped with this theoretical problem in an ad-hoc manner, splitting country samples by region or income level to look for changes in the strength and direction of causal relations or including occasional ad-hoc interaction effects between two variables. It would in theory be possible to add all possible interaction effects by adding multiplicative relations in a regression between all combinations of variables and adding a welter of dummy variables for all possible structural breaks and geographical regions. The resulting loss of degrees of freedom though would render the regression all but meaningless.

4.2. The Relation between Different Theories of Growth

There are numerous cross-country econometric studies finding some policy variable to be linked with economic growth. These include investment (positive), education (positive) and government consumption (negative) (Barro 1991). Openness to international trade (Frankel and Romer 1996), fiscal policy (Easterly and Rebelo 1993), financial development (King and Levine 1993), macroeconomic policies (Fischer 1993) and human capital (Pio 1994). There is no consensus on which of these policy variables to include in cross-country regression analysis. Over ninety variables have been proposed as potential growth determinants (Brock and Durlauf 2001:234)[13]. Economic theory

[12] Adding a premium for example when reforms were conducted in the correct sequence, deflation before devaluation, liberalisation of the current before capital account etc.

[13] Sala-I-Martin (2001:281) argues this is really a problem of small samples, if the sample were large enough all potential variables, with particular slopes/ intercepts for each set of countries for all potential

rarely generates a complete listing of variables to be held constant when trying to gauge the impact on the relation between the dependent and independent variable. Mauro (1995) for example adds measures for corruption and Knack and Keefer (1997) likewise add proxies for trust to standard Barro-type regressions. There is no means to compare the merits of these two approaches and the relationship between these and other theories remains confusing. A causal relation between two variables (e.g. trade and growth) does not imply the falsity of another (e.g. democracy and growth). Levine and Renelt find "statistical relationships between long-run average growth rates and almost every particular policy indicator considered by the profession are fragile: small alterations in the 'other' explanatory variables overturn past results" (1992:943).

4.3. Growth as an Endogenous Process

When growth is an endogenous process it implies there is a stronger link between policy change and growth outcomes but paradoxically it will mean the process is less amenable to analysis using standard cross-country regressions. Abramovitz (1986) argued that a country being backward in productivity levels has a potential for rapid growth and convergence. Less appreciated is his argument that the process is often self-limiting, as an economy converges its speed of convergence is likely to slow[14], growth is an endogenous process. The relationship is a non-linear one and not suited for analysis by OLS in regressions. One of the most pressing issues in more recent discussion of growth has concerned the role of institutions, "Much of the cross-national empirical work on institutions has been plagued by the endogeneity of institutional quality: are rich countries rich because they have high quality institutions or the other way round" (Rodrik 2002:8).

Once we accept that growth is in part endogenously determined we must consider growth as a historical process. Econometrics does not deal well with historical change.

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non-linearities could be fitted into a regression.

[14] Countries may also forge ahead, such as the U.S. after 1870.

Endogenous growth theory is heavily implicated in the microeconomic foundations of neo-classical economics, "the content is stripped of its broader historical and social framework in deference to the requirements of the axiomatic and model-building associated with methodological individualism." (Fine 1998:3). Very special assumptions are typically made such as Cobb-Douglas production functions and constant intertemporal discount rates for preferences. Such assumptions are made to rule out problems of instability and multiple equilibria. The assumptions of homothetic preferences and neutral technical change employed by most growth economists rule out any possibility of structural change. Many models assume a constant and exogenous rate of population growth whereas the demographic transition is endogenously related to economic growth. Interestingly Przworski et al (2000:216) found that population growth was endogenously determined by the type of political regime, growing more rapidly in dictatorships. Income distribution and poverty are also conspicuous by their absence from growth models. There is no technological, institutional or social evolution. The reasons focus on the desire for analytical and model tractability, the constraints implied by steady state growth models, and obsession with the conditions for convergence or divergence. Path dependence is a solution in which the outcome is determined solely by initial conditions and parameters of the model. Once started the model has a life of its own and can only be changed by random shocks. History ends when the new equilibrium is reached. History is metaphorical, "the ghosts of maximisation and equilibrium still lurk in the background." (Martin, 1999:76).

4.4. Growth and Hysteresis Effects

Hysteresis effects are likely to exist in the process of economic growth. Hysteresis implies that a temporary economic shock can have a permanent impact on future growth. Most of the research on hysteresis is now somewhat dated and applies principally to the case of unemployment or exchange rate changes in developed countries (Lindbeck and Snower 1986, 1988a+b, 2001; Blanchard and Summers 1986, 1987, 1988; Baldwin 1988; Baldwin and Krugman 1989; Begg 1988; Dixit 1989, 1991, 1992; Brunello 1990;

Krugman 1991; Layard et al 1991). The implication being that growth is not a linear process and regression analysis will have trouble analysing capturing this effect. More relevant examples to developing countries include Easterly (2001a) who argues there are virtuous and vicious circles at work in the process of growth connected with threshold effects. Green revolution technology for example depends on the availability of both seeds and fertilisers through access to adequate credit (and hence collateral). Households with enough collateral can invest in the necessary skills and technology to get the virtuous circle going. The option is not open for poor households without collateral. In the case of exogenous shocks there is the potential for hysteresis effects. A disaster can wipe out the liquid assets of a household and leave the household thereafter in a poverty trap and unable thereafter to invest in green revolution technology. Potential poverty traps make households and an entire economy more vulnerable to shocks (Easterly 2001a:Ch10). A terms-of-trade shock that rendered part of a country's capital stock useless might shift some countries near the critical mass level of capital below the critical line, shifting a country from strong growth to decline. The same shock may have little effect on a country far from the threshold. Other examples include Murphy et al (1989) who formalise the concept of the Big-Push (Rosenstein-Rodan 1943; Nurkse 1953; Scitovsky 1954). The size of the domestic market may be a constraint on growth in LDC's. Firms may not be able to generate enough sales to make adoption of increasing returns technologies profitable and hence industrialisation is stalled. If various sectors of the economy adopted IRS technology simultaneously they could each become a source of demand for output in other sectors. Simultaneous industrialisation could be self-sustaining even if no sector could break even industrialising alone. The big-push is associated with multiple equilibria, a non-linear effect from investment to growth. These examples show that variables have a large and robust effect on certain countries at certain times and are insignificant/ negatively related at other times. Neat econometric models with fixed coefficients will by definition be impossible to find.

4.5. Cross-Country Growth Regressions and Dynamics

Theories of cyclical and adjustment dynamics of output are not well developed within growth theories. Starting with Barro (1991) reliable data sets for many traditional growth determinants (inflation, government expenditure, tariffs, inequality etc) typically ran for twenty-five plus years. Averages over this sample length are too short for history and too long to model macroeconomic policy changes and short-run dynamics. In cross-sectional regression analysis it is not clear whether variables affect long-term growth or the steady state, or both. Some growth effects are contemporaneous (macroeconomic and cyclical factors), others could take several years (transitional dynamics due to changed investment incentives), others even decades (incentives effecting the rate of technical change). Some right-hand-side variables may have output/ growth effects at all horizons: - cyclical, transitional and steady state. There is no reason to assume these are of the same magnitude or even of the same sign (Temple 1999:124).

What little ad hoc empirical work has been carried out finds it is common for regression parameters over time to be unstable. Knack and Keefer (1997) find that social variables have different signs on growth before and after 1980. To make assertions about time varying relationships between growth determinants and outcomes requires theory to specify not only what these relationships are but also how they shift over time.

4.6. Universalism in Cross-Country Growth Regressions

In order to run large cross-country regressions researchers are tightly constrained to the assumption of universalism. Conventional growth analysis assumes parameter homogeneity - parameters describing growth are identical across countries. Each individual country provides evidence that can be used to elucidate this one underlying universal economic relation. An increase in openness for example is hypothesised to have the same effect on growth in all countries. There are a small number of exceptions. Islam (1995) and Gordon and Gupta (2004) allow the constant term to differ across

countries (controls for fixed effects) using panel data. More commonly an occasional dummy variable is added for regions and notable events such as the 1973 oil crisis or 1982 debt crisis. In practise there is evidence to suggest the processes and components of growth do work differently over time and space. The implication being that cross-country growth regressions are an intrinsically poor mechanism to analyse growth and each growth experience should be treated as potentially unique i.e. as a case study.

Many studies explain Africa's slower growth as a function of different levels of explanatory variables (Easterly and Levine 1997; Sachs and Warner 1997; Bloom and Sachs 1998). They seek to explain growth as the result of a *common* growth process that begins from different *levels* of the same explanatory variables. However significant regional dummies remain common in much of the empirical literature, particularly for Sub-Saharan Africa. The usual assumption is that significant dummy variables are capturing the influence of missing variables, which must then be unearthed. This has led researchers to propose ever more variables in the hope that the dummy variable will be rendered insignificant and growth in sub-Saharan Africa will finally be 'explained'. The alternative methodology is to drop the assumption that only the levels of explanatory variables are different and explore the idea that the growth process in sub-Saharan Africa works differently. There are a limited number of studies that suggest this latter idea may be true.

Block (2001) conducts a flexible analysis and allows for the slope coefficients to differ. Block finds openness[15] in Sub-Saharan Africa has a much stronger effect on growth than his sample average. This he hypothesises is due to African economies being smaller and subject to more stringent trade restrictions. Block also finds that growth is less responsive to fiscal policy, implying that Africa does not so clearly benefit from the reduction of fiscal deficits. Block uses a further series of auxiliary regressions to test why Africa differs in the operation of its growth determinants. The determinants of institutional quality[16] and population growth he finds operate differently in Africa.

[15] Measured by Sachs and Warner (1995) index or the trade share in GDP.
[16] Ethnoliguistic fragmentation, education and raw material abundance have a different causal relation with

Growth determinants have different marginal impacts in Africa (2001:456). Block concludes that homogenous adjustment policies are unlikely to work where the growth process is heterogeneous, when the mechanisms of growth differ in Africa from elsewhere. Brock and Durlauf find "the operation of ethnic heterogeneity on growth is different in Africa, not just the levels of ethnic heterogeneity.....a comparison of the other regressor coefficients for Africa with those of the rest of the world makes clear the growth observations for African countries should not be treated as partially exchangeable with the growth rates of the rest of the world." (2001:264). Asiedu (2002) finds that for a given level of trade openness, infrastructure and return on capital, sub-Saharan Africa receives less FDI. Mosley (2000) finds that financial repression is a significant influence on growth in Asia, and inequality only has a negative impact on growth in regions other than sub-Saharan Africa. He argues that good policy "should be seen as relative to the economy's resources and state of development, and not as absolutes. Just as the high levels of (performance-based) protection and financial repression were appropriate for the East Asian countries in the 1960s and became less appropriate once these economies had become more internationally competitive in manufactures in the 1980s...the same may be true of sub-Saharan Africa in the 1990s.....highest level of endogenous distortions, policies which effectively compensate for those distortions are more important as a complement to prudent macroeconomic policy than in an environment with better infrastructure and worse macroeconomic fundamentals such as Eastern Europe...." (2000:632). Mosley (2000) conducts limited econometric evidence (Chow tests and splitting his sample) on contextual dependent policies, specifically finding different impacts of both orthodox and heterodox policies[17] by region and income level.

5. The Proposed Model

The first part of this chapter outlined the various empirical and theoretical reasons why cross-country growth regressions are unlikely to yield good empirical results. This

institutional quality in sub-Saharan Africa.

[17] Financial repression, agricultural subsidies, performance related protection, policy stability etc.

section outlines the alternative model that shall be used in this thesis and shows how it relates to these theoretical and empirical problems.

5.1. Complementarity is Important

Chapter IV will show that there are three variables that must be in place to initiate and sustain an episode of growth. If any one of them is missing the economy will be stuck in an episode of stagnation. The first two variables relate to crucial roles for the state in finance (mobilising and allocating the economic surplus to those wishing to invest productively), and in production (ensuring the surplus is invested productively). The third variable relates to institutions that are necessary to overcome the conflict inherently associated with economic development. None of these variables alone is likely to have a consistently significant causal impact on economic growth. The various complementary roles of the financial role of the state cannot be measured or analysed using cross-country regression analysis. To allocate resources the state could utilise subsidies (which indicate an enlarged fiscal role for the state), by tax incentives (which imply a reduced fiscal role for the state) and by policies that raise the profitability of private sector firms such as repression of labour mobilisation (which implies no fiscal role for the state). Such polices are complementary ways of achieving the same outcome. There is no reason to assume why for example the 'share of government expenditure in GDP' used by Barro (1991) should have any particular sign or significance in a cross-country growth regression.

5.2. Hysteresis is (potentially) Important

The importance of complementarity between these three variables means that hysteresis effects can have a very significant impact. If any of these variables fails an episode of growth can quickly turn into an episode of stagnation. In chapter VI we will see how the Indian droughts of the mid-1960s led to the electoral disintegration of the Congress party.

This removed an important institution that was hitherto managing conflict in the Indian polity by incorporating dissent, providing mediation and allocating (political) rents relatively efficiently. Constraints on the subsequent ability of the state to allocate efficiently the (still substantial) resources that were mobilised throughout the 1970s locked India into a political economy of stagnation.

5.3. The State is Important (Finance)

Section 3 noted that there is little empirical evidence that the state has an important role to play in economic growth. In practise the state is crucial to economic development but not in a way that can be captured by one crude regression variable. The various roles of the state are complementary (see above). A crucial (financial) role of the state is in allocating the economic surplus to those wishing to invest productively. In a developing economy there is no particular reason why the surplus should naturally find its way into the hands of those wishing to invest. This idea is distinct from neo-classical economics which holds that the surplus will be automatically transferred from those wishing to save to those (firms) able to offer the highest return investment projects. The neo-classical theory is of very limited relevance in a developing economy where the allocation of the surplus will have long run implications for class formation. Those to whom the surplus is allocated will continue to accumulate and become future capitalists and those saving from income will be left behind. A further critique of the neo-classical model is the assumption that financial intermediaries automatically emerge to facilitate the transfer of the surplus. In developing countries in practise the state is likely to play the most important role in facilitating the transfer of the surplus. Through promoting the banking system, through taxation/ subsidies, influencing the rate of profit and hence retained earnings and influencing patterns and levels of the flow of international capital. Together these imply that the role of the state in allocating the surplus must be analysed as a question of political economy. Chapter IV will explore these issues in more detail.

5.4. The State is Important (Production)

Investment has a robust presence in cross-country growth regressions. Investment is not sufficient; important as well is the productivity of that investment. The second complementary role for the state is with regard to production, to ensure that investment resources allocated to private sector or utilised directly by the state either raise productivity in an existing market niche (intensive growth or learning) or upgrade to a higher technology market niche (extensive growth).

The state has a crucial role in promoting learning because of the prevalence of market failures. Neo-classical economics assumes innovation takes place in advanced countries and learning in LDC's is no more difficult than selecting the most appropriate among innovations (Lall 1995, 1999). In practise there is less difference between innovation in developed countries and industrialisation based on learning already commercialised technology. Much technology is tacit and to effectively master it requires extensive experience and experimentation. The process of learning to reach the efficiency frontier is slow, risky, and costly. Learning by doing may imply a lengthy and unpredictable period of losses as firms learn and adapt technology to make it more appropriate to developing country conditions. In theory private capital markets could fund firms through the period of learning. In practise uncertainty, risk and illiquidity mean private capital will be reluctant.

It is important that rents created by the state to induce learning be conditional. There is a good chance learning rents will fail to generate growth. Numerous infant industries protected from international competition have not become dynamic and have instead rested in pleasant lethargy on guaranteed profits. There are important pre-conditions for rents to be used to promote learning. Rents must be allocated in a contingent manner, withdrawn from those firms failing to learn, export or reduce costs. The bureaucracy must be competent enough to allocate rent ex-ante to potentially dynamic capitalists or strong enough to withdraw them ex-post from failing capitalists. The relation of the state

to these various classes can only be explored as a political economy question. Chapter IV will explore these issues in more detail.

5.5. Institutions are Important for Episodes of Growth and Stagnation

This chapter has shown that the typical growth experience of a developing country is characterised by episodes of stagnation, growth spurts, structural breaks, and instability. A research agenda on geography and institutions has stepped back from this problem seeking to explain differences in average growth rates over the long-term, over fifty or a hundred years. Such explanations include the nature of the colonial state (Acemoglu et al 2001), factor endowments (Sokoloff and Engerman 2000), malaria (Gallup and Sachs 2000), and geography (Gallup and Sachs 1999). *This thesis* seeks to explain the distinct episodes of growth and stagnation existing over the medium-term, more like a decade than a century. It would be difficult for example to envisage how the nature of the colonial state or geography could explain the sudden lurch to stagnation in Cote D-Ivoire after 1978 after several decades of rapid growth. Likewise how factor endowments or income inequality could account for rapid economic growth in China after 1978. This thesis does argue that institutions are important in explaining episodes of growth and stagnation. While there is a good deal of literature looking at the effect of institutions in promoting economic growth this thesis looks at the under-researched topic of how institutions can mediate the (negative) relationship between conflict and economic growth.

Economic development is concerned with shifting resources from low to high productivity areas which is an inherently conflictual process. The mobility of some assets will be limited; owners will then face problems of obsolescence, unemployment and inequality. Those having sunk investments in physical capital, skills, contractual relationships, and political patronage are likely to resist change (Chang 1999). The financial role of the state in allocating resources to those wishing to invest productively and the production role of the state in ensuring those resources are used productively are

not sufficient. Such an allocation and use of resources could be undone for example by groups mobilising who wish to obtain resources for the purposes of consumption rather than investment.

Those institutions that have been widely tested in regressions are mainly those theorised as being important in neo-classical economic theory. In particular analysis in work such as Easterly (2001c) and Rodrik (1999a) has focused on property rights and democratic political institutions. Chapter IV will provide a critique of the view that these are the only institutions able to mediate the conflict inherent in economic growth. There are other institutions that may reduce the impact of conflict on economic growth, those discussed here are i) a repressive state, ii) inclusive institutions, iii) ideological institutions.

Leftwich (1995, 2000) focused on the autonomy of the state as being important in allowing the state to implement distributionally non-neutral policies. This view is too narrow; a more inclusive institution building strategy *is* also possible. An important part of securing legitimacy for a given (re)allocation of rights may be in compensating the (potential) losers rather than repressing them. Identifying those requiring compensation, minimising the transaction costs associated with such transfers, and minimising rent-seeking by other entities requires a state that is more 'embedded' than 'autonomous'. The Congress party in India between independence and the mid-1960s provided an inclusive and embedded institution that could perform this role. The party developed an elaborate system of factions at every level of political and governmental activity that provided a system of co-ordination between the various levels of the party. It provided a well-defined network for the distribution of the spoils of office, institutionalised procedures of transaction and absorbed dissent by co-opting leaders of subordinate classes.

Even groups excluded from development or suffering from rising levels of inequality may acquiesce in their own exclusion for ideological reasons. A political party that can subordinate members' individual aspirations to a collective ideology, and exclude

opponents can be an important institution to manage conflict and facilitate economic reform. In India there is some evidence tightly organised ideological parties have been better able to implement reform. An example is the BJP after 1980. The BJP is a cadre based, ideological political party relying on a network of activists owing allegiance to the BJP and the wider Hindu nationalist organisation (the Sangh Parivar). The BJP has functioned (since its formation in 1980) as a highly successful, disciplined political party, characterised by mass membership, high levels of ideological commitment, and a tightly knit party structure that has endured without splits since its formation (Basu 2001).

The impact of institutions on episodes of growth and stagnation will not be captured by long-run cross-country growth regressions. The Congress party was crucial in mediating the negative consequences of growth between 1951 and 1965 (Chapter V) and its absence an important factor behind stagnation after 1965 (Chapter VI). The return of growth after 1979/80 was not due to the restitution of an inclusive institution but to the easy availability of (international) capital. This allowed the state to meet the rent-seeking aspirations of enough interests in society to maintain political stability as well as fund large increases in public investment (Chapter VII). These dynamics would be missed by a crude regression of growth on some proxy of the inclusionary capacity of political parties.

5.6. The Relation between Different Theories

It was noted in section 4.2 that there is an ambiguous relation between different theories of growth. Numerous cross-country growth regressions find various indicators of policy to be positively related to economic growth. There is no clear way to reconcile these findings. Using the framework here this is no longer a dilemma. There are complementary/ alternative means in which the state can mobilise and allocate resources and ensure learning and complementary/ alternative institutions that can mitigate the problems of conflict. These can and do shift over time. For example, the role of public investment was crucial in promoting economic growth in India between 1951 and 1965

(Chapter V) and also between 1979/80 and 1991 (Chapter VII). In both cases such investment was productive and growth promoting. Between 1965 and 1980 public investment had little impact on economic growth because much of it was unproductive (Chapter VI). By contrast after 1991 sharp cuts in public investment were associated with relatively rapid economic growth (Chapter VIII). This apparently contradictory finding would spoil any long-run cross-country growth regression but can be easily explained in this framework. The state after 1991 had switched its efforts from mobilising and allocating resources directly through its own budget to facilitating the mobilisation and allocation of resources by the private sector through liberalising the domestic financial sector and international capital.

5.7. The Case-study Approach: Growth as a Historical Process

Cross-country growth regressions assume that economic growth operates according to universal laws and statistical regularities that operate across all economies across time and space. There are only a few exceptions and the occasional dummy variable for regions and notable events. Discussion in this chapter demonstrated that there is evidence the growth process differs significantly between different regions and countries and over time. The fragility and heterogeneity of regression coefficients by region and country is only a beginning. Opening up of the assumption of universalism to greater scrutiny leaves us asking why the growth process may differ. Output responses to policy changes could for example depend on timing, expectations, and history (Pritchett 2001:274). This thesis will go on to isolate another specific historical case study, that of India in the post-independence period. The case study approach is justified in this thesis in part on the assumption that growth processes is not universal. The comparison of episodes of growth and stagnation in the post-Independence Indian economy allows us to focus on the factors that influence growth and how their impact has altered over time. The case studies are periods across time in the same country rather than different countries at a single moment in time.

The first pressing problem is how to define and categorise an episode of growth or stagnation. Chapter III will establish that there was one episode of stagnation (1965 to 1980) and three episodes of growth (1951 to 1965, 1979 to 1991 and 1991 to 2004) in the post-independence Indian economy. There are various ways of categorising an episode of growth/ stagnation and various will be considered, this thesis takes a mix of both quantitative and qualitative factors. The definition of an episode of growth and stagnation is not made purely on the basis of average rates of GDP growth. This allows us to draw a distinction between 1950 to 1965 and 1965 to 1980 and identify a crucial difference in the sharp fall in industrial (not overall GDP) growth and the collapse (after 1965) in the governments' ability to efficiently allocate the economic surplus to promote sustainable medium-term growth. Similarly there is no clear change in average growth rates of GDP or industry between 1979 to 1991 and 1991 to 2004. The difference lies in the question concerning the sustainability of the two episodes. Firstly, whether the episode of growth between 1979 and 1991 faced inherent limitations due to the accumulation of debt. And secondly, whether the episode of growth after 1991 is unlikely to be sustained due to the failures to upgrade and learn in domestic industry and to increase value-added and shift to more up-market niches in export markets.

Despite growth being an event that takes place over time most models of growth are a-historical. Historical case studies are far richer in theoretical argument and analysis than macro-quantitative studies. The analysis of historical sequences allows us to "bring to bear a much deeper conception of the social, political, institutional and technological sources of growth than theoretical and empirical economists are usually able to incorporate in formal models." (Temple 1999:120). The strength of comparative historical research is its ability to deal with multiple causal paths leading to the same outcome and different results arising from the same factor/ factor combination[18]. Comparative and historically informed case studies allow researchers to question the assumption of universality rather than be forced to assume it true a-priori. A historical analysis enables close attention to be paid to issues of dynamics rather than trying to

[18] Moore (1967) in his case studies of six countries, found three paths to political modernity, Rueschemeyer et al (1992) argue this helped transform the social sciences by re-establishing the comparative historical

shoe-horn them into a cross-country growth regression. Chapters V and VII show that in both 1951 to 1965 and 1979/80 to 1991 rapid growth in public investment was in large part responsible for rapid economic growth. In 1951 to 1965 the presence of a functioning Congress party enabled the state to mobilise and allocate domestic resources efficiently by overcoming the potential conflict inherent in such a development strategy. After 1979/80 the state was able to increase public investment only at the expense of the unsustainable growth of external and domestic debt. No such institution as the 1950s vintage Congress party then existed to enable the state to impose the burden of financing higher public investment on any particular group(s) in society. This reveals a superficially similar process (public investment led growth) had very different implications for sustainability. After 1991 public investment was sharply reduced but economic growth continued at a relatively rapid rate. The state after 1991 (Chapter VIII) was fairly successful in facilitating the private sector to mobilise resources for investment. This example shows a very different starting point in 1991 (reduced public investment-led growth) as compared to 1951 (increased public investment-led growth) led to a very similar outcome in terms of growth. Such examples would be missed by cross-country growth regressions.

Section 2.3 showed that the growth experience of a typical developing country was one characterised by episodes of boom, bust and stagnation. Case studies are a better means than econometrics to identify and explain such episodes. The analysis in section 4 showed that cross-country growth regressions are a particularly inappropriate means of to test for such effects. Closer studies of episodes of growth, such as Indonesia after 1966, Korea in the 1960s, Chile after 1988 can be useful in establishing the conditions that initiate episodes of growth. Also interesting are the comparative performances of countries experiencing the same exogenous shock, Chile and Zambia to declines in the price of copper in the mid-1970s, Indonesia and South Korea to the 1997 Asian crisis, and Korea and Brazil to the 1980s debt crisis. In this thesis there are similar interesting points of comparison thrown up by a time-wise case-study analysis. For example, the comparative experience of exogenous shocks such as the 1965 drought which initiated an

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mode of research.

episode of stagnation and the 1979 oil price shock which heralded an episode of growth. This is the lesson drawn from Rodrik (2003) who argues for a methodology that emphasises a general understanding of the approaches that generate growth rather than the relationship between specific policies and economic growth highlighted by growth empirics. The theoretical part of this thesis (chapter IV) will identify the state as a crucial institution in initiating and sustaining an episode of growth.

The use of historical case studies in analysing growth would be a return to quite a recent tradition of using case studies. Much of the intellectual artillery for the Neo-classical counter-revolution in economics was derived from close case studies of the experience of countries that had pursued strategies of import substitution in the post-independence period[19]. Industry was argued to be high-cost, capital-intensive and generating little employment. Far from achieving self-sufficient industrialisation such countries continued a dependence on imports of capital goods and inputs. This type of analysis provided important antecedents for the shift to strategies of outward orientation often as intrinsic parts of structural adjustment programmes from the 1980s onwards.

[19] For the case of India see Bhagwati and Desai (1970) and Bhagwati and Srinivasan 1975).

Chapter III: Empirical Framework

1. Introduction

This chapter develops an empirical framework based on the methodological critique in chapter II. We use the case study of post-independence India. This chapter begins by outlining the definition of an episode of growth or stagnation used in this thesis. *This thesis* looks beyond simple averages of GDP growth and rigorous statistical definitions of episodes of growth or stagnation. Several criteria, both quantitative and qualitative are used here in defining episodes. The quantitative relate to changes in average growth of GDP or its components, agriculture, industry or services, or even more disaggregated indices such as heavy industry. The qualitative relate to issues relevant for the sustainability of growth/ stagnation, these include changes in productivity and the diversification of output. Episodes of growth or stagnation are here defined as 'a significant change in both the quantitative and qualitative nature of growth relative to India's own history'. A number of other potential methods are introduced and contrasted to the method used here. The second part of this chapter presents the quantitative and qualitative data that is used to define and illustrate the three episodes of growth and one episode of stagnation analysed in this thesis. Section 3 outlines the broad characteristics of the episode of growth between 1951 and 1965. In quantitative terms there was a sharp upward break in growth of GDP and industry compared to the pre-independence period. In qualitative terms diversification increased rapidly. Section 4 outlines the episode of stagnation between 1965 and 1980. In quantitative terms the rate of GDP growth showed no statistically significant change relative to 1951-65. The rate of industrial growth however slowed in particular the growth rates of heavy industry. In qualitative terms growth of productivity and diversification of industrial output slowed sharply. Section 5 outlines the episode of stagnation between 1980/81 and 1991. In quantitative terms GDP growth and industrial growth increased sharply. In qualitative terms productivity growth showed a sharp increase. The economy as a whole grew by about three and a half/ four percent from Independence to 1980 and by over five percent until 1991. The final section

outlines the episode of growth between 1991 and 2004. In quantitative terms there was no change in the rate of GDP growth and a slowdown of industrial/ manufacturing growth, the latter was especially marked after 1996. In qualitative terms the rate of productivity growth slowed. Though more sustainable that 1979/80 to 1991 in purely financial terms there are qualitative doubts about the sustainability of growth after 1991 due to questions of learning and diversification.

2. Methods of Measuring Episodes of Growth and Stagnation

This section outlines the definition of an episode of growth or stagnation used in this thesis. Episodes are measured in both quantitative and qualitative terms. A number of other methods that have been used by other scholars are reviewed to gauge whether they add anything useful to this method.

2.1. Episodes of Growth and Stagnation

This thesis looks beyond simple averages of GDP growth and rigorous statistical criterion when defining episodes of growth or stagnation. Several criteria, both quantitative and qualitative are used here in defining episodes. The quantitative aspects relate to changes in average growth of GDP or its components, agriculture, industry or services, or even more disaggregated indices such as heavy industry. The qualitative aspects relate to issues relevant for the sustainability of growth or stagnation, these include changes in productivity and the diversification of output. Episodes of growth or stagnation are here defined as 'a significant change in both the quantitative and qualitative nature of growth relative to India's own history'.

This thesis finds that there are four episodes of growth and stagnation in post – Independence India; the break from colonial stagnation after 1951, industrial stagnation from 1965 to 1980, an increase in economic growth after the late 1970s/ early 1980s, and

a continued episode of growth after reforms in 1991. The comparison of the periods 1951 to 1965 (growth) and 1965 to 1980 (stagnation) is a good example of how judgement rather than precise statistical criteria is used to distinguish episodes of growth and stagnation. The difference between the two periods is not distinguished by a change in GDP growth. There was a structural break (decline) after 1965 in the average rate of industrial growth, in particular the growth of heavy industry. There was also a collapse in the ability of the government to efficiently allocate the economic surplus to promote long-term sustainable growth leading to a decline in the efficiency of resource allocation.

Existing analytical attention devoted to the various episodes of growth and stagnation in post-Independence India is inconsistent. The post-1965 slowdown in industrial growth while being hotly debated in the 1970s is now forgotten (Bagchi 1970, 1975, 1977, 1981, 1988; Sau 1974; Mitra 1977; Srinivasan and Naryana 1977; Nayyar 1978, 1981; Shetty 1978; Chakravarty 1979; Patnaik 1981, 1984; Rangarajan 1982; Bardhan 1984; Varshney 1984; Ahluwalia 1985; Chandrasekhar 1988). The episode of growth after 1979 is primarily treated as a statistical question (Nagaraj 1990a; Bhargava and Joshi 1990; Bai and Perron 1998, 2003; Wallack 2003) though there are some emerging signs of scholars attempting to explain the statistical findings and draw wider conclusions (Rodrik and Subramaniam 2004a; Panagariya 2004). There is a huge literature on the reforms of 1991. Much of this literature simply assumes 1991 to have been significant and amounts to a before-and-after study (Dreze and Sen 1995; Chandrasekhar 1996; Ahluwalia 1998; Mani 1998; Kumar 1998; Deshpande and Deshpande 1998; Kumar 1999a,b; Khanna 1999; Tewari 1999; Basant 2000; Jha 2000; Kohli 2001; Ramaswamy 2002; Vaidya 2002; D'Costa 2003). There is a growing recognition that aggregate GDP growth didn't change after 1991 (Chandrasekhar 1996; Mani 1998; Ahluwalia 1999, 2002; Kumar 2000a; Chaudhuri 2002; Acharya 2002b; Nagaraj 2002, 2003b; Virmani 2004a,b), and productivity growth slowed (Balakrishnan et al 2000; IMF 2002; Das 2003a; Goldar and Kumari 2003; Rodrik and Subramanian 2004a; Goldar 2004). There remain few attempts to integrate the assumption and the actual outcome. Agriculture has been frequently exposed to a spotlight trying to find trends, turning points and structural breaks. Notable debates including the green revolution after 1965 (Thamarajakshi 1969, 1977, 1990;

Vaidyanathan 1977; Srinivasan 1979; Patnaik 1981; Desai 1981; Mody 1982; and Sawant 1983) and the reasons for rapid agricultural output growth in West Bengal during the 1980s after several decades of stagnation (Boyce 1987, Harriss 1992, Saha and Swaminathan 1994). This thesis attempts to correct the unhelpful dichotomy between firstly, analysis of the general economy, confined to the analytical straightjacket of steady state growth models, and secondly, agriculture where analysis of growth has long been based on the assumption that it is an inherently unstable process. There is a small literature looking at episodes of growth and stagnation and its likely sustainability at state level, the break from stagnation in Kerala during the 1990s being the most prominent example (Subrahmanian and Azeez 2000; Harilal and Joseph 2003; Chakraborty 2005; Kannan 2005; Subrahmanian 2006).

2.2. Phases of Growth and Stagnation in India

Virmani (2004a) defines one episode of stagnation as lasting from independence to the early/ mid-1970s and an episode of growth from then onwards. The national accounts (based on 1993/94 prices) have recently been extended backwards and comparable data going back to 1950 is now available. Virmani (2004a) uses this series to construct long-term growth trends for this fifty-year period. He constructs a Hodrick-Prescott (HP) filtered GDP series and a moving average. Virmani finds there are two clear 'phases', revealed by the growth rate trends of the HP-filtered series and the ten-year moving average. As measured by the HP series the growth trend recorded a downswing after independence and reached a low point of 3.3% p.a. between 1971/72 and 1973/74. Growth then recovered during a second (upswing) phase to a highpoint of 6.1% between 1994/95 and 1995/96. The ten-year moving average fluctuated typically locked between 3-4% during the first thirty years. Starting from 1978/79 there is a clear trend upwards, after which the average never fell below 4% and on occasion exceeded 5%. This rigorous statistical definition misses the change in the qualitative nature of growth after 1965 and also the important questions concerning the sustainability of growth before and after 1991.

2.3. Comparative Episodes of Growth and Stagnation

Some scholars have unearthed episodes of growth and stagnation through international comparisons. Here an episode of growth is defined as one in which India is growing relatively rapidly compared to either other developing countries or is converging (however slowly) on the technological leader. Clark and Wolcott (2001) have shown that there is a very long episode of (relative) stagnation lasting from the mid-nineteenth century to the mid-1980s when India's growth stagnated relative to the UK and US. The second was an episode of growth after 1980 when India showed signs of some convergence to the US. Per capita income rose 10% relative to the US in 1987-91, and by another 14% between 1991 and 1998 (Clark and Wolcott 2001:4). The pattern changes when we compare India to other LDC's. Virmani (2004a:56) shows that between 1950 and 1964 India's growth performance was similar to the mean of all developing countries. Between 1965 and 1979 however India's growth performance declined dramatically, to 69th from a set of 79 countries for which comparable data is available. Ahluwalia (1995) confirms that India's growth performance was close to the bottom between 1965 and 1980. After 1980 India's growth accelerated whilst growth elsewhere declined, hence India experienced an episode of (relative) growth. Between 1981 and 1986 India grew by almost 5%, growth in the average LDC declined to 2.5%, and the group of non-oil LDC's to 3.5%. This led to an improvement in India's relative performance, between 1980 and 2000 India's growth ranking improved to 9th from 86 countries. Between 1980 and 2003 only China, Singapore, Thailand, South Korea, Malaysia, Vietnam, and Thailand had higher average growth. Rodrik (1999a) notes that developing countries fall into two groups, those that (at least) sustained growth after the 1979/80 global crisis and those that collapsed into stagnation. India fell into the former category. An international comparison reveals in starker clarity the success of countries like South Korea and Taiwan who managed to sustain growth, this fact would be missed by focusing only on the domestic economy.

2.4. Comparative Episodes of Sectoral Growth and Stagnation

In recent years India has been characterised as having service-led economic growth. A comparative analysis reveals a more nuanced picture. Virmani (2004a) compares India's experience with other countries to gauge whether the service sector share was an outlier. He constructed an average share during 1992 to 2000 along with average per capita GDP (constant PPP) regressing one against the other to derive a predicted share for the service sector at each income level. India's share was then compared with the norm for the 160 countries for which data is available. Based on this equation India's average service sector share is 45%, almost identical to the predicted value of 44%. India had a normal share of the service sector in the 1990s. Repeating the calculation for 1980 to 1991 (using a 148-country sample) India had an average of 40%, lower than the norm of 43%. Faster service sector growth in the 1990s can be seen as correcting an earlier imbalance. The notion of 'service-led' growth in India being a distinct developmental pattern is also something of a mirage created by growth of manufacturing which has consistently been slower than the LDC norm. Service sector growth in India increased from less than 7% in the 1980s to 7.5% p.a. in the 1990s. Manufacturing growth remained below 7%. By comparison, manufacturing growth in China between 1979 and 1990 exceeded 10% (Nolan 1995).

2.5. Episodes of Growth and Stagnation at State Level

As a large federal country episodes of growth and stagnation can also be analysed at the state level (cross-section) as opposed to time-series at the all-India level.

Growth in some states (Orissa, Rajasthan and Gujarat) shows large year-to-year fluctuations, and in others (Kerala, Punjab, West Bengal) growth is relatively stable. The average also varies considerably between states. Between 1970/71 and 1995/96 growth averaged 3.13% in Gujarat, 3.48% in Maharashtra, 2.88% in Punjab, 1.41% in Jammu and Kashmir, and 1.61% in Bihar (Dasgupta et al 2000:2416). There are some interesting

cases of episodes of growth at state level. Real NSDP in Rajasthan grew at 1.32% 1971-1980 and by 8.34% 1981-90, Tamil Nadu from 1.79% to 5.7% over the same period. Growth in Kerala between 1971-80 was only 2.19% and between 1992-5 8% p.a., in Gujarat over the same period the increase was from 3.88% to 10.39% p.a. Industrial growth in Haryana was rapid, 7.5% and 9% in the 1970s and 1980s. Industrial growth in Kerala declined from 4.97% in the 1970s to 3.36% in the 1980s but reached 9.91% between 1992-5. Industrial growth in Gujarat showed an accelerating trend, from 5.27% in the 1970s, 7.99% in the 1980s and 15.51% between 1992-5.

Such disaggregated analysis allows us to shine a spotlight on the regional contributions to shifts in all-India growth averages. The national shift in growth rates in the early 1980s was a regionally concentrated phenomenon (Dholakia 1994). There are only a small number of states where 1981/82 is clearly significant. These include Karnataka where growth increased by 1.14%, Madhya Pradesh 3.68%, Maharashtra 1.74%, Tripura 1.7%, Uttar Pradesh 2.61%, and West Bengal 2.17%. All these states except Karnataka experienced an acceleration of growth greater than the all-India average. The characteristics of these states form an interesting comparison. They are located in all five zones of India. Most of them are large in terms of population, geographical area, employment and income and in aggregate account for around 60-70% of the Indian economy. All except Maharashtra are low income relative to the national average.

The focus on state level growth forces us to be more nuanced about generalising explanations for all-India episodes of growth and stagnation. The national acceleration after 1979/80 hides very substantial differences through which growth increased in individual states. Maharashtra was the first to turn into a high growth state in 1972/73 from a moderately growing state without experiencing any increase in the growth of the primary or secondary sectors. Gujarat turned into a high growth state in 1973/74 when the tertiary sector experienced a sharp increase of 3.11%. In the following year the secondary sector experienced a substantial rise in growth of 3.05%. Gujarat however experienced only moderate economic growth after 1981/82 because of a sharp deceleration in agricultural growth. Uttar Pradesh turned into a high growth state in

1974/75 when it experienced, firstly, a more than doubling of growth in the primary sector then later, a significant acceleration of growth in the secondary sector, and finally in the service sector. Growth in Uttar Pradesh slid back relative to the national average after 1981/82. Assam and Madhya Pradesh both turned into high growth states in 1979/80 and were responsible on the margin for shifting the national average to a higher level in 1981/82. Both experienced a growth spurt firstly in the industrial and then the tertiary sectors. Assam turned into a high growth state in 1979/80 with a sharp increase, of 10.62% in secondary sector growth. Subsequently West Bengal in 1982/83 and Himachal Pradesh and Karnataka in 1985/86 all experienced a jump in growth of 2.5%. Punjab and Haryana had both historically been high growth states and declined relative to the national average after 1981/82.

All-India economic growth slowed after the mid-1990s. Krishna (2004) shows that rapidly growing Gujarat and Maharashtra slowed from 6.5% to 3.2% and 5.7% to 3.8% between 1991/92 to 1995/96 and 1995/96 to 1999/00. Kerala and Orissa likewise from 5.3% to 4.2% and 3.9% to 1.6% respectively. By contrast Karnataka from 5.1% to 6.7% and West Bengal 4.7% to 5.7% improved their growth rates after the mid-1990s. Other states to buck the national trend and grow faster after 1995/96 were Bihar, Haryana, Madhya Pradesh, Punjab, Rajasthan and Uttar Pradesh.

The growth experience of Kerala remains something of a puzzle. It experienced a deceleration in growth of total SDP in 1972/73, with marked slowdowns in the tertiary and secondary sectors. Growth of SDP jumped from 2.5% between 1980 and 1990 to 5.2% between 1992 and 1998. Given high levels of social development growth was still surprisingly low. Rajasthan experienced the highest growth of any state in the pre-reform (1980s) period. The state economy grew fastest in tourism, agriculture, construction, other services and manufacturing. There are various state specific explanations behind this acceleration in growth. The benefits of a delayed green revolution and construction of the Command Canal for wheat production, the growth of tourism in the 1980s and 90s and rapid electrification of the state in the 1980s. Orissa experienced growth of only 1% p.a. in the 1980s, of particular note was the very low (0.72%) growth in agriculture.

Though the soils and suitability for irrigation are similar to more successful states Orissa suffers from a vulnerability to floods and tropical cyclones. In the post reform (1990s) period, despite continuing to suffer from these poor geographical endowments, growth jumped to 2.5% p.a. Orissa has ranked 6th among all states in terms of hosting foreign investment, pursuing a successful industrial policy that has attracted FDI to its abundant natural resources. Orissa has 90% of the chrome ore and nickel reserves, 70% of bauxite, and 24% of the coal reserves for all-India. Agriculture remains disappointing and recorded an average growth of 0.5% in the 1990s.

3. An Episode of Growth, 1951 to 1964

This section outlines the broad characteristics of the episode of growth between 1951 and 1965. In quantitative terms there was a sharp upward break in growth of GDP and industry compared to the pre-independence period. In qualitative terms diversification increased rapidly.

It was a common argument among Indian nationalists that British imperialism had led to complete/ partial deindustrialisation. This is an enormous paradox for those advocating domestic and trade liberalization today. India's economy between 1873 and 1947 conformed to a neo-liberal ideal, with secure property rights, free trade, fixed exchange rates, monetary stability and open capital markets. During this entire period India suffered a decline in its relative income. Income in India declined from around 20% of the US level in the early 1870s to less than 7% at Independence (Clark and Wolcott 2001). Bagchi (1976) argues that India saw a decline in the proportion of national income generated by the industrial sector and in the proportion of the population engaged in secondary industry. Bagchi also presents evidence to show that there was stagnation/ decline in the number of handloom weavers and cotton workers.

Chandra (1982) argues that such long-term stagnation persisted after independence, until the 1970s. Stagnation he argues was an absolute not just comparative event. Chandra

notes that per capita output of crop production fell by more than 20% between 1919 and 1975/6. Peaks in per capita crop production were little different in 1909/10, 1910/11, 1916/17, 1964/65, 1970/71, 1975/76. Foodgrain consumption per capita declined from 173.5kg in 1900-20 to 169kg in 1960/61 and between 1900 and 1970 the proportion of the population engaged in agriculture remained unchanged at 70%. The problem with Chandra is his use of partial evidence. The focus on agriculture though the largest sector in the Indian economy ignores the more general economic growth and structural changes that occurred after 1951.

3.1. Economic Growth 1951 to 1964

Table 3.1 shows that the Indian economy grew by over 4% between 1951 and 1964, whether GDP is measured by market or factor cost. There was positive growth in GDP, consumption and investment in both public and private sectors. Growth was state-led. Between 1951 and 1964 growth of government consumption (6.6% p.a.) exceeded growth of private consumption (3.7%). The growth of private investment (3.5%) was considerably less than the growth of public investment (7.9%). Growth was no miracle but a clear break with historical stagnation.

Table 3.1: Growth in the Indian Economy, 1951-1964

	1951-64
Growth Rate (%)	
GDP (Market Prices)	4.4
GDP (Factor Cost)	4.1
GDP at Factor Cost (HP Filtered)	3.9
Pc GDP at Market Prices	2.3
Pc GDP at Factor Cost	2.0
Private Consumption	3.7
Govt Consumption	6.6
Investment	7.9
- Machinery and Equipment	9.7
Private GFCF	3.5
Goods and Services Export	0.0
Coefficient of Variation (std/Mean)	
GDP at Market Prices	0.5
GDP at Factor Cost	0.6

Source: (Virmani 2004a:15).

3.2. Structural Change, 1951-1964

The mistake of Chandra (1982) was to generalise the experience of the agricultural sector to that of the whole economy. Table 3.2 shows that the agricultural and allied sector grew by only 2.9% p.a. between 1951 and 1964. This was not because the entire economy was stagnant but because of the low priority accorded to agriculture in the Mahalanobis model. Manufacturing grew by 6.6% p.a. and electricity, gas and water by 11.2% p.a. (the latter from a low base). Public administration and defence grew by 6.6% p.a., communications by 7.4% and trade by 5.6%. The tradable goods sector grew by only 3.6% p.a. considerably less than the 5.2% p.a. in the non-tradable sector. Compared to historical stagnation and the stagnation that ensued after 1965 these were the "glorious Mahalanobis years" (Chandrasekhar 1988:318).

Table 3.2: Sector Growth Rates in India, 1951 to 1964

Sector	1951-64
I Agriculture and Allied	2.9
I.1 Agriculture	3.1
2. Mining	5.6
3. Manufacturing	6.6
3.1 Registered (Modern)	7.9
3.2 Unregistered	5.4
4. Electricity, Gas and Water	11.2
5. Construction	6.8
6. Trade, Hotels and restaurants	5.6
6.1 Trade	5.6
6.2 Hotels and Restaurants	5.6
7. Storage, Transport and Communication	5.9
7.1 Railway	4.8
7.2 Other Transport	6.4
7.3 Storage	2.3
7.4 Communication	7.4
8. FIREBHS	3.1
8.1 Banking and Insurance	6.6
8.2 Real Estate, Housing and Banking Services	2.1
9. Community Social and Personal Services	4.4
9.1. Public Administration and Defence	6.6

9.2 Other Services	3.3
Sub-Aggregates	
A. Tradable Goods	3.6
B. Non-Tradable Services	5.2
b.1 Services, excluding FIREHBS	5.6
C. GDP, excluding GDP Administration	4.0
D. Services excluding GDP administration	5.0

Source: (Virmani 2004a:17).

4. An Episode of Stagnation, 1965 to 1980

This section outlines the broad characteristics of the episode of stagnation between 1965 and 1980. In quantitative terms the rate of GDP growth showed no statistically significant change relative to 1951-65. The rate of industrial growth slowed, in particular growth of heavy industry. In qualitative terms growth of productivity and diversification of industrial output slowed sharply.

Table 3.3 shows that economic growth between 1965 and 1980 declined to 2.9% p.a., this difference is not statistically significant. Virmani (2004a) finds a Chow test for a structural break in GDP growth shows a possible break in 1963/64 and also (less likely) in 1964/65, both are considerably of less likelihood than a similar test for 1980/81. The use of dummy variables for the period 1965/66 to 1979/80 to test for a structural break in GDP growth are insignificant. Once the break in 1980/81 is accounted for it is difficult to locate any other statistically significant breaks in growth. This is what leads Virmani to conclude the entire period between 1950 and 1980 was one of only two 'phases in growth'.

Table 3.3: Growth in the Indian Economy, 1951-64 and 1965-79

	1951-64	1965-79
Growth Rate (%)		
GDP (Market Prices)	4.4	2.9
GDP (Factor Cost)	4.1	2.9
GDP at Factor Cost (HP Filtered)	3.9	3.5
Pc GDP at Market Prices	2.3	0.6

Pc GDP at Factor Cost	2.0	0.6
Private Consumption	3.7	2.8
Govt Consumption	6.6	5.1
Investment	7.9	4.5
- Machinery and Equipment	9.7	3.7
Private GFCF	3.5	3.8
Goods and Services Export	0.0	10.2
Oil Import		37.1
Coefficient of Variation (std/Mean)		
GDP at Market Prices	0.5	1.4
GDP at Factor Cost	0.6	1.5

Source, (Virmani 2004a:15).

When considering this question in a broader context there are important distinctions in the period 1965 to 1980 that mark it out as an episode of stagnation in contrast to the earlier episode of growth. The first distinction being a change in the qualitative nature and the second a change in the qualitative pattern of economic growth.

4.1. The Nature of Growth: Productivity

The qualitative *nature* of economic growth showed a sharp decline in productivity growth after 1964/65. Sivasubramonian (2004:286) shows that output per unit of input dropped from 1.78% p.a. between 1950/51 and 1964/64 to 0.41% p.a. between 1964/65 and 1980/81. Likewise Virmani (2004b:23) shows that TFP growth fell from +1.4/6% p.a. between 1950/51 to 1964/65 to –0.1/+0.6% between 1965/66 and 1979/80.

4.2. The Nature of Growth: Patterns of Industrial Stagnation

Another striking change after 1965 was a sharp break in the quantitative *pattern* of economic growth. After 1965 the Indian government conspicuously failed to maintain the momentum of industrialisation framed in the Mahalanobis strategy of planned economic development.

Ahluwalia (1985:Ch 7) has made the most comprehensive examination of patterns in

Indian industrial stagnation. She estimated semi-logarithmic time trends for alternative measures: - value added, value of output and industrial production.

$$\text{Log } Y = a + b_t$$

The regression coefficient b is the estimate of the annual growth rate. Ahluwalia also used dummy variables to allow the intercept and slope to differ and show any slowdown in the rate of growth of value added or value of output.

$$\text{Log } Y = a + a`D + b_t + b`D_t$$

D takes the value 0 until 1965/6, and 1 afterwards. The sum of the two t's is the compound growth rate for the second period. This allows directly for a test of whether the slowdown is statistically significant. The choice of an arbitrary break point is potentially problematical but in the case of India quite apparent. 1965/66 marks a watershed in the post-Independence Indian economy, marking the end of the third five-year plan, devaluation of the Rupee, the second year of the drought, beginning of the three annual plans, and the end of the second Indo-Pak war.

Ahluwalia's results are striking and confirm there was an episode of stagnation that would be missed by focusing on GDP growth alone. Industry grew by 7% p.a. between 1956/7 and 1965/6, and thereafter 5.5% until 1979/80. The slowdown is statistically significant. The sectoral incidence of the slowdown reveals distinct patterns. Mining (9% of value added) slowed from 9% p.a. in the first period to 3% in the second. Within manufacturing industries constituting two-thirds of total value added (notably machinery, transport equipment, chemicals and rubber) experienced a significant decline in growth after 1965/6. Metal products fell from 12.5% p.a. in the first period to 2.5% in the second. Similar though less dramatic patterns are evident in basic metals and non-metallic mineral products. Textiles and food manufacturing (20% of value added) did not share in the deceleration. Food manufacturing showed no significant change because of large year-to-year fluctuations. Other consumer industries such as beverages, tobacco,

footwear, furniture, and leather and fur products showed no significant decline in growth. Those sectors experiencing the greatest slowdown (basic metals, metal products, machinery (electrical and non-electrical) and transport equipment were precisely those targeted for growth by the Mahalanobis strategy. Growth in the textile sector actually increased from 2.3 to 4.4% over the two periods, though the change was not statistically significant.

In terms of used and input-based groups between 1959/60 and 1979/80 there are equally striking results. Capital and basic goods sectors (that had grown rapidly between 1951 and 1965) experienced the greatest subsequent downturn. Basic goods, mining, iron, steel and other non-ferrous basic metals experienced a sharp slowdown in growth. Cement showed a fluctuating growth path and fertilisers no significant decline in growth. For capital goods slowdown was across the board. Transport equipment (40% of the sector) slowed from 11% p.a. to only 3.5%, machinery industries (20% of the sector) also experienced a significant slowdown. Growth of intermediate goods fell from 5.7% to 4.4%. Growth of consumer non-durables increased slightly. In neither case was the change significant. Table 3.4 gives some statistical details from another source, the figures vary slightly owing to a different choice of break-point from Ahluwalia.

Table 3.4 shows that the average rate of growth of agriculture slowed from 2.9% to 1.4% between 1951 to 1965 and 1965 to 1979, this is not statistically significant. A Chow test reveals a potential break point at 1964/65 though a dummy variable finds both 1962/63 and 1964/65 to be insignificant. Virmani (2004a) does not find any statistical break in the growth of GDP from agriculture during the entire 52-year span of his analysis, once variations in rainfall are accounted for. He argues fluctuations in output, not the underlying growth trend has created impressions of structural breaks in agricultural growth.

Table 3.4: Sector Growth Rates during Different Phases

Sector	1951-64	1965-79
I Agriculture and Allied	2.9	1.4

I.1 Agriculture	3.1	1.5
2. Mining	5.6	3.7
3. Manufacturing	6.6	4.1
3.1 Registered (Modern)	7.9	4.4
3.2 Unregistered	5.4	3.7
4. Electricity, Gas and Water	11.2	8.1
5. Construction	6.8	3.2
6. Trade, Hotels and restaurants	5.6	4.0
6.1 Trade	5.6	4.0
6.2 Hotels and Restaurants	5.6	4.0
7. Storage, Transport and Communication	5.9	5.6
7.1 Railway	4.8	3.6
7.2 Other Transport	6.4	6.3
7.3 Storage	2.3	8.5
7.4 Communication	7.4	6.1
8. FIREBHS	3.1	4.0
8.1 Banking and Insurance	6.6	6.9
8.2 Real Estate, Housing and Banking Services	2.1	3.0
9. Community Social and Personal Services	4.4	4.2
9.1. Public Administration and Defence	6.6	5.7
9.2 Other Services	3.3	3.3
Sub-Aggregates		
A. Tradable Goods	3.6	2.0
B. Non-Tradable Services	5.2	4.2
b.1 Services, excluding FIREHBS	5.6	4.3
C. GDP, excluding GDP Administration	4.0	2.8
D. Services excluding GDP administration	5.0	4.1

Source: (Virmani 2004:17).

4.3. A Slowdown in Growth or a Structural Break in 1965?

Ahluwalia (1985) confirms the existence of a qualitative change in the growth of Indian industry post 1965-7, but examines the issue no further. In fact the results given are insufficient to confirm her hypothesis, "it is never easy to establish causal relationships.....especially on questions such as the impact of industrial policy framework on industrial growth. However, the accumulation of evidence certainly points in that direction. It suggests an urgent need for a review and overhaul of the industrial policy framework." (Ahluwalia 1985:165). Ahluwalia is arguing it was the choice of policy by the government that generated stagnation. Ahluwalia (1991) agrees that the degree of domestic regulation is difficult to quantify and uses partial measures:- the scale of operations (to measure industrial fragmentation) and growth in the number of factories

during the period of analysis (to measure competition). These tests give poor results often with the wrong signs. Ahluwalia makes no attempt to relate *patterns* in industrial growth to *patterns* in the industrial policy framework.

Ahluwalia (1985) confirms the stagnation of the Indian economy after 1965-7 by demonstrating a fall in the average rate of growth. The two averages (pre and post-stagnation) are ambiguous. Both stylised patterns of industrial growth in Fig 1 are consistent with Ahluwalia's findings. Average growth pre and post 1965-7 is the same in both, yet offer very different interpretations.

Fig 1: Stylised Patterns of Growth

The first is a pattern of secular stagnation, consistent with cumulative inefficiency caused by increasing government intervention and regulation as suggested by Ahluwalia. The second shows a structural break in growth occurring in 1965-7. Further analysis needs to be conducted to distinguish between secular decline in the growth rate and a structural break to a lower level.

I first conducted a series of Chow tests for a general index of industrial, electricity, transport and allied industries and manufacturing output to examine if regression parameters are the same in the two sub-samples. I accepted the period 1965-7 as the arbitrary choice of break point for reasons already given. All indices had a base of 100 in 1970/1, using data from 1951/2 to 1978/9, the beginning of the first five-year plan to the end of the fifth. I also used an index of gross domestic capital formation (GDCF) with data extending back one further year to 1950/1. Table 3.5 shows all are significant at the one-percent level; we can reject the hypothesis that the growth rate was the same in the period before and after 1965-7.

Table 3.5: Results of the Chow tests.

YEAR	INDEX	F STATISTIC
1951-79	Industrial Production	$F_{2,23} = 56.125$
1951-75	" "	$F_{2,29} = 48.01$
1951-79	Electricity	$F_{2,23} = 76.885$
1951-75	"	$F_{2,19} = 38.373$
1951-79	Transport	$F_{2,23} = 27.606$
1951-75	"	$F_{2,19} = 21.961$
1951-79	Manufacturing	$F_{2,23} = 62.465$
1951-75	"	$F_{2,19} = 50.263$

Source: Authors own calculations.

Table 3.6 shows the index of GDCF is not significant at the ten percent level for either period. We cannot reject the hypothesis that the growth rate of GDCF has changed before and after 1965-7.

Table 3.6: Results

YEAR	INDEX	F STATISTIC
1950 – 79	GDCF	$F_{2,24} = 2.546$
1950 – 75	"	$F_{2,20} = 2.208$

Source: Authors own calculations.

I then examined issues of secular change within each sub-period using two functions. The constant growth function:-

$$\text{Log } Yt = a + b_t$$

And a log quadratic function, that permits decreasing ($b_2 < 0$) or increasing ($b_2 > 0$) growth rates.

$$\text{Log } Yt = a + b_{1t} + b_{2t}^2$$

The growth rates for the five periods, 1951-79, 1951-75, 1951-65, 1968-75 and 1968-79 were gauged using the constant growth function. I chose two end points, 1975 and 1979, to avoid any problems with a faster growth after the mid-1970's disguising the earlier slowdown. A log-quadratic function was fitted to each of these periods to gauge if there was a significant acceleration or deceleration of growth within each period.

The results for manufacturing, industry and electricity show a remarkably similar pattern. All show significant deceleration during the periods 1951-75 and 1951-79. Deceleration over this period is not steady but characterised by a distinct pattern. All three sectors show significant acceleration of production up to 1965, then dramatic deceleration during the period 1968-75. Growth falls from 7.5% to 3.97%, 12.71% to 7.12% and 7.59% to 3.63% in industry, electricity and manufacturing respectively between 1951-65 and 1968-75. GDCF shows a fall from 7.49% in 1950-65 to 6.11% in 1968-75, though it is not statistically significant (peculiar figures for transport are caused by dramatic fluctuations in output).

The acceleration in industrial growth is demonstrated using a table of five year moving averages from 1950/1 to 1964/5 (table 3.7). Industrial growth shows a distinct acceleration from 1955/6-1959/60 to 1959/60-1963/4, increasing in each five-year period.

Table 3.7: Five-year Moving Averages of GDP and Industrial Growth

Period	GDP Growth	Industrial Growth
1950/51 – 1954/55	2.92	
1951/52 – 1955/56	3.58	7.52
1952/53 – 1956/57	4.26	7.76
1953/54 – 1957/58	3.10	7.86
1954/55 – 1958/59	3.50	7.41
1956/57 – 1959/60	3.32	6.61
1956/57 – 1960/61	4.06	6.97
1957/58 – 1961/62	3.62	7.58
1958/59 – 1962/63	4.36	9.03
1959/60 – 1963/64	3.70	9.33
1960/61 – 1964/65	4.92	9.03

Source: Authors own Calculations.

The generalised pattern of industrial growth and its sub-sectors was rapid and accelerating until 1965, during 1965-75 the average rate growth decelerated sharply.

Fig 2: stylised pattern of Indian industrial growth

General acceleration until 1965, a structural break in growth between 1965-7, deceleration until 1975, a modest revival to 1979, with growth rates finishing in 1979 below the level attained in 1951-65.

5. An Episode of Growth, 1980/81 to 1991

This section outlines the broad characteristics of the episode of stagnation between 1980/81 and 1991. In quantitative terms growth of both GDP and industry increased sharply. In qualitative terms productivity growth increased sharply. The economy as a whole grew by about three and a half/ four percent from Independence to 1980 and by over five percent until 1991.

5.1. GDP Growth 1980/81 to 1991

Nagaraj (1990a) finds growth shows increased by 3.4% p.a. between 1950/51 and 1979/80 and by 4.6% between 1979/80 and 1987/88. The break in growth remains significant for 1979/80 even if the recession that year (-5.2% GDP) is left out. Growth of GDP in the 1980s was shared by all three sectors of the economy. The primary sector showed a slight increase over the 1960s and 70s, the tertiary sector a steady increase in growth over the three decades. Contrary to a widespread view the secondary sector (6.9%) in the 1980s actually grew slightly faster than tertiary sector (6.3%). The relative growth of the service sector did not happen until the 1990s (table 3.11). Bhargava and Joshi (1990) find a sizeable increase in GDP growth with a break at 1980/81, from 3.4 to 5%. Separating the public and private sectors they find there are even sharper increases in private sector manufacturing which more than doubles its growth rate. Nagaraj (1991) argues this finding is misleading, showing that moving the turning point from 1980/1 to 1981/2 makes the relative contribution of the public and private sector appear more equal.

Bai and Perron (1998, 2003) computed optimal one, two and three break points for the growth rate of various series, including per capita GDP (constant dollars and at PPP prices), and GDP per worker, in all cases they found a single break occurs in 1979. Wallack (2003) analysed GDP and its disaggregated components for structural breaks, finding the highest F-value occurring in 1980. Rodrik and Subramanian (2004a) find that growth of real GDP per capita and real GDP per worker to be on a marked upward trend after 1980. The growth of per capita income increased from 1.7% between 1950 and 1980 to 3.8% between 1980 and 2000. Virmami (2004) confirms these general patterns (table 3.8). Average GDP growth rose from 2.9% between 1965 and 1979 to 5.5% between 1980 and 1991, whether measured by market prices or factor cost. When measured by HP-filtered data GDP per capita shows an increase, from 0.6% to 3.2/ 3.3%.

Table 3.8: Growth in the Indian Economy

	1965-79	1980-91
Growth Rate (%)		
GDP (Market Prices)	2.9	5.5
GDP (Factor Cost)	2.9	5.5
GDP at Factor Cost (HP Filtered)	3.5	5.2
Pc GDP at Market Prices	0.6	3.3
Pc GDP at Factor Cost	0.6	3.2
Private Consumption	2.8	4.5
Govt Consumption	5.1	6.0
Investment	4.5	5.0
- Machinery and Equipment	3.7	9.9
Private GFCF	3.8	8.4
Goods and Services Export	10.2	8.4
Oil Import	37.1	6.9
Coefficient of Variation (std/Mean)		
GDP at Market Prices	1.4	0.4
GDP at Factor Cost	1.5	0.5

Source: (Virmani 2004:15).

5.2. Sectoral Growth, 1980/81 to 1991

Nagaraj (1990a) finds that private sector manufacturing growth (18% of total GDP in 1987/8) increased from 4.6 to 6.5% after 1979/80, and found the difference to be

statistically significant. He finds that banking and insurance grew rapidly in the 1980s (10.3%), as did mining and quarrying (10.2%) and electricity, gas and water (9.9%). Testing for structural breaks in the growth of non-tradable services (excluding GDP originating from government administration) the use of a Chow test by Virmani (2004a) reveals potential breakpoints in every year from 1980/81 to 1985/86. The highest probability of a break occurs in 1985/86. These results suggest that the acceleration in the growth of GDP from services was a gradual process between 1980/81 and 1985/86. Kelkar and Kumar (1990) find that value added in manufacturing grew 7.6% p.a. between 1959/60 and 1965/66, 5% between 1966/67 and 1979/80 and 10.13% between 1981/81 and 1988/89. In contrast to the below average performance of the metal and machine building industries, the chemicals and petrochemicals industry experienced above industry average growth in the 1980s. Chemicals and chemical product industries expanded by 11.19% p.a. The main areas of growth included synthetic fibres, downstream petrochemical products, plastics, and inorganic chemicals. These figures are broadly echoed by data from Virmani (2004a) (table 3.9). Agriculture enjoyed a sharp increase in (average) growth rates from 1.5% between 1965 and 1979, to 4.2% between 1980 and 1991, manufacturing from 4.1% to 6.1%, banking and insurance from 6.9% to 11.6%, and real estate, housing and banking services from 3.0% to 8.0%. Service sector growth increased from 4.1% to 6.4% even when excluding GDP originating from government administration. Very few sectors actually showed slower growth between these two periods. Among the exceptions were storage (8.5% to 2.5%) and other transport (6.3% to 6.0%). In general these figures demonstrate that the growth pattern of the Indian economy in the 1980s marked a significant departure from the Mahalanobis period where growth was driven by metal-based products and machine building. The investment-led growth of 1951-65 was in stark contrast to the consumption-led growth of the 1980s. The consumer goods sector was traditionally the slowest growing amongst the various sectors until the end of the 1970s, during the 1980s it became the fastest growing segment of industry.

Table 3.9: Sector Growth Rates, 1965-79 and 1980-91

Sector	1965-79	1980-91

I Agric and Allied	1.4	3.9
I.1 Agric	1.5	4.2
2. Mining	3.7	8.4
3. Manufacturing	4.1	6.1
3.1 Registered (Modern)	4.4	6.8
3.2 Unregistered	3.7	5.0
4. Electricity, Gas and Water	8.1	9.0
5. Construction	3.2	5.2
6. Trade, Hotels and restaurants	4.0	5.4
6.1 Trade	4.0	5.4
6.2 Hotels and Restaurants	4.0	6.1
7. Storage, Transport and Communication	5.6	5.7
7.1 Railway	3.6	4.9
7.2 Other Transport	6.3	6.0
7.3 Storage	8.5	2.5
7.4 Communication	6.1	6.3
8. FIREBHS	4.0	9.4
8.1 Banking and Insurance	6.9	11.6
8.2 Real Estate, Housing and Banking Services	3.0	8.0
9. Community Social and Personal Services	4.2	5.6
9.1. Public Administration and Defence	5.7	6.2
9.2 Other Services	3.3	5.2
Sub-Aggregates		
A. Tradable Goods	2.0	4.7
B. Non-Tradable Services	4.2	6.3
b.1 Services, excluding FIREHBS	4.3	5.7
C. GDP, excluding GDP Administration	2.8	5.4
D. Services excluding GDP administration	4.1	6.4

Source: (Virmani 2004a:17).

5.3. The Qualitative Pattern of Growth

There is a voluminous debate on whether productivity growth increased in the 1980s relative to the earlier episode of stagnation (see chapter VII). The balance of the evidence suggests there was a turnaround in productivity growth after 1979. There was also a sharp fall in the volatility of growth as measured by the coefficient of variation, which fell from 1.4/1.5% between 1965 and 1979 to 0.4/0.5% between 1980 and 1991 (table 3.8). Panagariya (2004) is right in saying that growth in the 1990s was more variable (table 3.10) than in the 1980s. This hardly, as he suggests has dire implications for the sustainability of growth in the 1980s. Relative to the entire post-independence period growth was very stable in the 1980s, the coefficient of variation of GDP being much lower between 1980-91 than either 1965-79 (table 3.3) or 1951-64 (table 3.1).

6. An Episode of Growth, 1991 to 2004

This section outlines the broad characteristics of the episode of growth between 1991 and 2004. In quantitative terms there was no change in the rate of GDP growth and a slowdown of industrial/ manufacturing growth, especially after 1996. In qualitative terms the rate of productivity growth slowed.

6.1. GDP Growth, 1991 to 2004

Ahluwalia (1999) argues it is useful to distinguish between two periods in the reform era. The years between 1991/92 and 1993/94 were the years of crisis management, where the primary objective was stabilisation. Between 1994/95 and 1997/98 was the post-stabilisation period that had a longer-term objective of raising the trend rate of growth. The first period was according to Ahluwalia a great success, the current account deficit and inflation fell, while growth gradually accelerated from 0.8% in 1991/92 to 5.3% in 1992/93 and 6.2% in 1993/94. During the post-stabilisation period GDP growth continued impressively in 1994/95 and 1996/97 averaging 7.5%. Growth slowed to 5.1% in 1997/98 suggesting to Ahluwalia that as of 1999 that reform had not raised the long-run growth rate. The acceleration of GDP despite only a marginal increase in total investment suggests that productivity growth had increased, which is "precisely the outcome one would expect from efficiency-orientated structural reforms." (Ahluwalia, 1999:33). Ahluwalia (2002) confirms the earlier finding showing that between 1992/3 and 2001/2 growth averaged 6%, though this masks a slowdown, from 6.7% growth in the first five years and 5.4% in the next five. For this thesis we look at the entire period after 1991 as one episode of growth.

There is no clear evidence of an acceleration or even change in the growth rate of GDP after 1991, growth continued at 5.7% from c1980 to c2000. Nagaraj (2002) uses a

dummy variable to show that there was no statistically significant break in GDP growth in 1991. This result holds even when 1991/2 is excluded. Kumar (2000a) excluding the crisis year 1991/92 shows there was acceleration between the second half of the 1980s (5.8%) and 1992/98 (6.5%). Virmani (2004a:31) found no statistically significant break in GDP growth in either 1991/92 or 1992/93 using a dummy variable. GDP he argues whether measured by market prices or factor cost increased from 5.5% to 6/6.1% between 1980 to 1991 and 1992 to 2001 (Table 3.10).

Table 3.10: Economic Growth in India, 1980-91 and 1992-02

	1980-91	1992-2001
Growth Rate (%)		
GDP (Market Prices)	5.5	6.0
GDP (Factor Cost)	5.5	6.1
GDP at Factor Cost (HP Filtered)	5.2	5.8
Pc GDP at Market Prices	3.3	3.9
Pc GDP at Factor Cost	3.2	4.1
Private Consumption	4.5	4.9
Govt Consumption	6.0	6.6
Investment	5.0	7.8
- Machinery and Equipment	9.9	7.9
Private GFCF	8.4	8.6
Goods and Services Export	8.4	10.8
Oil Import	6.9	13.2
Coefficient of Variation (std/Mean)		
GDP at Market Prices	0.4	0.2
GDP at Factor Cost	0.5	0.2

Source: (Virmani 2004a:15).

6.2. Sectoral Growth, 1991 to 2004

India's manufacturing sector according to Mani (1998) registered a growth rate of 8% p.a. between 1985/86 and 1990/91, falling by 2.5% p.a. in the period 1992/93 to 1997/98. Between 1991/92 and 1995/96 Chandrasekhar (1996) notes that manufacturing growth averaged 7.4%, which though lower than the growth (8.3%) between 1986/87 and 1990/91 was on an accelerating trend 0.6% 1991/2, 2.3% 1992/3, 6% 1993/4, 9.4% 1994/5, 12% 1995/6. Kumar (2000a) confirms that the industrial growth rate was on an

accelerating trend between 1992/3 and 1995/6. Chaudhuri (2002) shows that the compound annual growth rate of gross value added in the registered manufacturing sector was 7.03% between 1950/51 and 1965/66, 7.66% between 1980/81 and 1990/91 and 5.91% between 1990/91 and 1998/99. Nagaraj (2002) uses a dummy variable to test for a structural break in growth in 1991/2 for both total manufacturing and registered manufacturing. By 1994/95 five from the seventeen manufacturing sub-sectors (chemicals, metal products, non-electrical machinery and machine tools, electrical machinery and appliances and transport equipment) totalling a third of manufacturing weight accounted for two-thirds of growth of manufacturing sector. This laments Chandrasekhar demonstrates the lack of a 'synchronised recovery', quite what the dire implications of this are he doesn't explain. Nagaraj (2003b) finds industrial growth slowed sharply in 1991/92 then grew rapidly, peaking in 1995/96 when annual growth reached 14%. Growth decelerated over the next seven years with a temporary improvement in 1999/00. This slowdown as yet is not yet statistically significant. Within capital goods the production in (numbers) of passenger cars increased from 31,000 in 1980/81 to 5.8 lakh in 2000. This was equivalent to annual growth of 15% for the two decades. Gross value added in the machine building industry grew by 1.7% p.a. between 1981 and 1997, turning negative thereafter. In 2001 output of the domestic metal working machine tool manufactures declined by 14%, the fourth consecutive years of decline since 1997. This Desai (2001) called a 'massacre of machine building'. This during a period when industrial investment was booming. Much of the incremental demand was met by imports, the import-to-consumption ratio nearly doubled from 29% in the 1990s to 56% in 1995.

Continued high growth rates between the 1980s and 1990s is almost entirely due to the services sector, where annual growth increased from 6.7 to 7.8% (Acharya 2002b). The service sector contributed to 60% of growth in the 1990s and 70% in the last four years of the decade, growth had become service-sector led. Some of this (about 0.5% p.a.) is spurious resulting from higher salaries awarded by the Fifth Pay Commission. Business Services was the fastest growing sector in the 1990s, averaging nearly 20% p.a. There is a lack of disaggregated data though export and software industry data indicate that this

growth was mainly on account of the IT sector. Growth began from a low base so its contribution to service sector and GDP growth was quite modest. Communication services (80% of which was accounted for by the telecommunications sector) grew by 14% growth p.a. over the 1990s, making a significant contribution to services growth. Growth in the banking sector accelerated from 7% from 1950 to 1980, to 12% in the 1980s and 13% in the 1990s. Overall the contribution was larger, even than that of the communications sector. Dummy variables for all of these sectors are positive and statistically significant for 1991/92 showing that there was a structural break in growth in the 1990s. Education (70% of value added in this sector) and health services (23% of value added) both grew at an average of 8% in the 1980s. Public administration and defence in the 1990s grew by 6%, similar to growth in previous decades. Transport, dwellings, and storage grew at the same trend rate in the 1980s and 90s (Gordon and Gupta 2004).

Comprehensive data from Virmani (2004a) confirms these trends, in particular that there is a very mixed pattern of growth when comparing 1980-91 and 1992-01 (table 3.11). Agriculture slowed down between the two periods from 4.2% to 3.3%. Other notable sectors in which growth decelerated include mining 8.4% to 3.8%, electricity, gas and water 9.0% to 5.7%, railways 4.9% to 3.3%, and banking and insurance 11.6% to 9.4%. Sectors in which growth accelerated include manufacturing 6.1% to 6.8%, hotels and restaurants 6.1% to 10.3%, communication 6.3% to 18.0%. The growth rate of tradable goods remained nearly the same, 4.7% to 4.5% while that of non-tradable goods accelerated from 6.3% to 7.5%.

Table 3.11: Sector Growth Rates, 1980-91 and 1992-2001

Sector	1980-91	1992-2001
I Agric and Allied	3.9	3.3
I.1 Agric	4.2	3.3
2. Mining	8.4	3.8
3. Manufacturing	6.1	6.8
3.1 Registered (Modern)	6.8	7.1
3.2 Unregistered	5.0	6.3
4. Electricity, Gas and Water	9.0	5.7
5. Construction	5.2	5.3

6. Trade, Hotels and restaurants	5.4	8.1
6.1 Trade	5.4	8.0
6.2 Hotels and Restaurants	6.1	10.3
7. Storage, Transport and Communication	5.7	8.9
7.1 Railway	4.9	3.3
7.2 Other Transport	6.0	7.0
7.3 Storage	2.5	2.0
7.4 Communication	6.3	18.0
8. FIREBHS	9.4	7.7
8.1 Banking and Insurance	11.6	9.4
8.2 Real Estate, Housing and Banking Services	8.0	6.3
9. Community Social and Personal Services	5.6	7.1
9.1. Public Administration and Defence	6.2	6.3
9.2 Other Services	5.2	7.7
Sub-Aggregates		
A. Tradable Goods	4.7	4.5
B. Non-Tradable Services	6.3	7.5
b.1 Services, excluding FIREHBS	5.7	7.4
C. GDP, excluding GDP Administration	5.4	6.1
D. Services excluding GDP administration	6.4	7.6

Source: (Virmani 2004a:17).

6.3. The Qualitative Pattern of Growth

There is broad agreement that the rate of productivity growth slowed in the 1990s relative to the 1980s (Chapter VIII). In addition growth in the 1990s was more stable. The coefficient of variation fell from 0.4/0.5 between 1980 and 1991 to 0.2 between 1992 and 2001 (table 3.10).

6.4. Why is 1991-2004 a Separate Episode of Growth?

Despite the similarity in the average rate of GDP growth there are three good reasons why 1991-2004 is here separated from 1979/80 to 1991. The first is that reforms in 1991 have been proclaimed by many as marking a distinct turning point in Indian economic development. The second is that a vast number of existing studies take 1991 as a turning point in their (before-and-after) analysis, so it makes some sense to utilise this literature. The third is that a large number of commentators compare unfavourably the sustainability

of growth prevailing in the 1980s relative to the 1990s. These three factors are introduced in turn, though analysed in more detail in chapter VIII.

Optimism knew few bounds, India needed, "merely an appropriate policy framework to produce the economic magic that Jawaharlal Nehru wished for his compatriots." (Bhagwati 1993:98). The reforms in 1991 were then and even now accorded acclaim, "our second independence had arrived: we were going to be free from a rapacious and domineering state..." (Das 2000). They were dramatic, few had imagined that the economy "would be transformed in its basic orientation in a matter of a few years." (Sachs et al 1999:13). It marked, "a fundamental transformation of India's economic strategy." (Varshney, 1999:230).

An enormous body of literature takes 1991 to be significant and analyses a wide range of economic processes before and after this date. For example, the consumer durable goods sector (Ramaswamy 2002), cement and steel (Vaidya 2002), IT (D'Costa 2003), financial sector (Khanna 1999), manufacturing (Mani 1998), corporate sector (Basant 2000), and industry (Chandrasekhar 1996). Also capital flows (Kohli 2001), FDI (Kumar 1998), employment (Deshpande and Deshpande 1998), poverty (Jha 2000), the black economy (Kumar 1999a,b), industrial clusters (Tewari 1999), infrastructure (Ahluwalia 1998), and social provision (Dreze and Sen 1995). Too often these studies simply assume 1991 was significant and do not actually analyse the causal mechanism by which 'liberalising reforms' impacted on their area of analysis. The impact of reform thus remains something of a black box and the studies are often better considered time-series narratives rather than 'impact of liberalisation' studies. The fact that the rate of GDP growth accelerated at the end of the 1970s/ early-1980s, not with the liberalising reforms in 1991 is typically ignored by these studies.

There is much asserting in the literature that growth in the 1980s was not sustainable and an implicit assumption that growth in the 1990s was sustainable. Acharya (2002a) argues that growth in the 1980s was not sustainable due to the build up of debt. Panagariya (2004) argues that growth in the 1980s was fragile and had a higher variance than in the

1990s. He argues that once reforms in 1991 took root growth became less variable and more sustainable with even a slight upward shift in the mean growth rate. Central to the high average of the 1980s was the last burst of growth in the decade, the spurt of 7.6% during 1988-91. Growth between 1978/79 and 1987/88 averaged 4.1%, little different from the long-run Hindu growth path. Without the growth spurt between 1988 and 1991 Panagariya argues there would be no reason to doubt whether reforms in 1991 had a significant impact. Reforms in the 1990s argues Panagariya were more systematic and systemic and generated more sustainable growth from 1992 onward.

Chapter IV: Theoretical Framework

1. Introduction

This chapter critically reviews the literature on the role of state in economic development. This falls into two schools, the economic and political. The limitations of the economic school include the limited scope of analysis, the lack of a political economy, and the importance of complementarity. Weaknesses of the political school include the limited analysis of the state's role, the relation between different theories, and lack of dynamics. A number of efforts have emerged to integrate these two schools which are reviewed here. The following theoretical section attempts an integration relevant for the empirical context outlined in chapter III, focusing specifically on the role of the state. The *financial* role of the state is in allocating the economic surplus to those able to invest productively. The *production* role of the state is to ensure financial resources so allocated are used productively, to either raise productivity in an existing market niche (learning) or upgrade to a higher technology market niche. The final section looks at how *institutions* can mediate the relationship between conflict and economic growth. The existing literature looking at this relationship is very limited. In this thesis a broader institutional perspective is considered. A repressive state, an inclusive state or an ideological state can help reduce the negative implications of conflict on development.

2. The Economic and Political Schools of the Developmental State

The literature on the role of the state in economic development falls into two schools. The first begins with identifying market failure and catalogues a range of economic policies that can be theoretically justified. Examples are disproportionately drawn from the experience of the Asian NIC's. The second focuses on the capacity of the state to identify and implement such policies. These are the 'economic' and the 'political'

schools. They are complementary, one elucidating the case for state intervention without addressing relevant questions of capacity, the other focusing on capability without considering what the state should do (Fine and Stoneman 1996). This section makes a critical review of these two schools. A number of efforts have emerged since the mid-1990s to integrate these two schools, the next section makes a critical review of some of these. An important drawback of such efforts is often their very stylised and mathematical approach. A close look at work by Khan subsequent to 1996 shows that his analysis seeks to answer questions different from those posed in this thesis.

2.1. The Economic School

There is an enormous literature on the economic rationale for state intervention. This section critically reviews some of the limitations of this literature; these are the limited scope of analysis, lack of a political economy, and importance of complementarity.

2.1.1. Limited Scope of Analysis

Much of the analysis from the economic school is limited in its wider relevance. An example is the high-debt model. Unlike companies in developed countries in Japan and Korea debt-equity ratios have typically exceeded one (Wade and Veneroso 1998). Together high ratios of bank deposits to GDP, loan intermediation to GDP, and debt-to-equity mean the overall financial structure in these two countries is vulnerable to shocks that depress cash flow or the supply of bank capital (such as higher interest rates or lower aggregate demand). Such a financial structure requires close co-operation between banks and firms to protect cash flows. This generates a potential but necessary economic role for the state, for example in limiting exposure to foreign borrowing to protect the financial sector from external shocks. Such collaboration is not simply 'crony capitalism' but an important and necessary response to market failure by the state. A by-product of such intervention is in allowing the state to influence the pattern of bank

lending. "High household savings, plus high corporate debt/equity ratios, plus bank-firm-state collaboration, plus national industrial strategy, plus investment incentives conditional on international competitiveness, equals the 'developmental state'." (Wade and Veneroso 1998:7). In practise this model has limited general relevance. Chapter III showed that rapid periods of economic growth have been characteristic of countries other than the high-debt Asian NICs. Developmental states include Mauritius and Botswana, neither of whom accord to the East Asian high-debt model (Leftwich 2000). The developmental role of the state is potentially wider than mediating bank-based borrowing. The mobilisation of resources through the state's *own budget* was crucial in achieving developmental outcomes in Brazil between 1968 and 1980 where there was a positive association between growth and public savings (Kriekhaus 2002). The Indian state achieved developmental type outcomes between 1951 and 1965 through high levels of public investment directed through its own budget (Chapter V). Amsden (1989) places the subsidy as the defining role of the developmental state. A subsidy conditional on firm performance she argues will both allow and compel manufacturers to become viable in LDC's where there is an existing comparative advantage in agriculture or simple processing. Her focus is on only one means of allocating resources. She does not consider for example own production in state enterprises, nor how the resources necessary for subsidies are mobilised.

2.1.2. Lack of a Political Economy

The economic school can sound like a wish list of desirable policies, little attention being paid to the practicalities of implementation. Late industrialisation is a case of pure learning-by-doing, utilising technological innovations already commercialised in developed countries. A subsidy represents a deliberate attempt to get prices wrong, to make manufacturing activity profitable and allow firms to engage in learning-by-doing (Amsden 1989). Proponents of this learning model have no political economy of learning (Amsden 1989, 2001; Lall 1992, 1995, 1999). Producing is a necessary but not sufficient condition to learn. Firms may simply produce inefficiently at high cost. There are

important political economy pre-conditions for rents to be used to promote learning. Rents must be allocated in a contingent manner, withdrawn from those firms failing to learn, export or reduce costs. The bureaucracy must be competent enough to allocate rent ex-ante to potentially dynamic capitalists or ex-post strong enough to withdraw them from failing capitalists. The political economy relation of the state with the capitalist class is crucial (Khan 2001b).

Another example is New Growth Theory. It seeks to model the sources of productivity growth, focusing on technological spill-overs or the learning-by-doing that arises spontaneously or through accumulation. These models variously endogenise technical progress (Romer 1986, 1990), human capital formation (Lucas 1988), and government expenditure (Barro 1990). An important implication of the theory is that government policies can have a permanent impact on the growth rate and it has generated a long list of desirable policies. In the model of Lucas (1988) (government) investment in human capital enters the production function, has spillover effects that increases the level of technology and raises long-run growth rates. Barro (1990) models how government expenditure can generate positive externalities through the provision of goods and services complementary to private sector investment (infrastructure, court systems, contract enforcement). Romer (1990) models firms in monopolistic competition producing knowledge in distinct R+D sectors. Government policy that impacts on interest rates or taxes (that influence the incentive to accumulate) or increases incentives to undertake R+D can raise long-run growth. It is difficult when desirable policy is theoretically so obvious to explain why governments continue for example to fail to attain 100% literacy. Only by going beyond the narrow confines of the economic school to a broader political economy perspective can we answer such questions. Easterly (2001b) examines the 'political economy of growth without development' that he argues has characterised Pakistan since independence. Pakistan has a well-educated professional elite class and has been the third largest recipient of official development assistance in the world between 1960 and 1998, yet has failed to invest in its social sector. Social indicators like infant mortality, female primary and secondary enrolments are much lower than countries with equivalent levels of per capita income (female literacy is around

30%). This is inexplicable from the perspective of the economic school where endogenous growth theory links such outcomes to poor economic growth. Easterly (2001b) argues the oligarchy[20] that rules Pakistan may accept lower growth. The higher education necessary to raise growth rates would risk a more educated population demanding political power at their expense. Similarly such a patriarchal society has little incentive, even were it to raise aggregate incomes, to educate women and undermine the male monopoly of learning.

Another burgeoning literature focuses on the role of public investment in creating profitable investment opportunities for the private sector. Crowding in occurs when private sector investment is conditional or contingent on public investment. This may be for many reasons, the long-gestation of investments such as power-supply, the limited size of domestic capital markets, the risk of large investments without precedent in a country undergoing the initial uncertainties of industrialisation, and the fact that much of the benefit from such projects is external to the original investment. E.g. investment in energy supply may not in itself be profitable, but the social benefits of creating investment opportunities in private sector industry may be enormous (Hirschman 1958). A private sector firm without recourse to general taxation is unlikely to be able to draw back sufficient of these benefits to make the project worthwhile. There has been a lot of work on crowding in of private investment in the Indian context. Bardhan (1984/1998) and Athukorala and Sen (2002) find the stimulation effects of public investment on private (especially corporate) investment dominates any negative effects operating through competition for investible funds. The effect is particularly important in agriculture (Shetty 1990; Mishra and Chand 1995; Gulati and Bathla 2001). Again the economic school would be at a loss to explain why public investment is ever too low. We need to venture into the realms of political economy for an explanation. An influential effort in the Indian context is that of Bardhan (1984/1998). He argued that India has a fragmented structure of dominant proprietary classes. In order to appease them all the state was forced to expand unproductive subsidies at the expense of

[20] Large industrialists, landowners, professional elite, military and civil bureaucracy.

productive public investment. He argues political economy considerations of political management and stability undermined long-term growth.

2.1.3. Complementarity is Important (but not enough)

There has been some limited discussion of complementarity in the economic school. An important lesson from early development economists such as Scitovsky and Rosenstein-Rodan is that system-wide change such as industrialisation requires co-ordination. With interdependence between agents change will not be automatic without the guarantee of complementary changes (Chang 1999). A stylised example of complementary investment is that of a steel mill and a shipbuilding industry, the former supplying inputs to the latter, neither being profitable without the other. Contracts between individual private agents to guarantee and if necessary enforce complementary investment may be too costly to draw up and monitor. The state has potentially a number of roles to co-ordinate investment, own production in the state sector, subsidising private production, and indicative planning to provide a focal point for co-ordination (Chang 1999). This debate is useful but limited, it focuses entirely on production and neglects the related and necessary complementary roles of *finance* (mobilising and allocating the economic surplus to those wishing to invest) and *institutions* (necessary to overcome the inherent conflicts associated with development).

2.2. The Political School

The political school focuses on the capacity of the state to identify and implement policies that can correct for the various market failures outlined by the economic school. Criticisms reviewed here are the limited analysis of what the state should do, the relation between different theories, and lack of dynamics.

2.2.1. What Should the State Do?

Quite frequently the political school gives a very clear story about the constraints facing the state, but no clear idea of what exactly the state is constrained from doing. Harriss-White (2003) for instance describes how the local state in India is constrained by various social structures of accumulation including class, caste, religion, space, and gender. With a social structure of patriarchy for example, gender influences access to the state, males are better able to secure loans, subsidies, and production licenses. Social structures help explain why state intervention is distorted, and the most efficient potential producers are unable to secure access to resources. It throws no light though on what the state should better be doing. Similarly Bardhan's (1984) political economy featured three dominant proprietary classes, the industrial bourgeoisie, rich farmers and professionals. Bardhan argues that this class structure generates severe constraints on the state. "When diverse elements of the loose and uneasy coalition of the dominant proprietary classes pull in different direction and when none of them is individually strong enough to dominant the process of resource allocation, one predictable outcome is the proliferation of grants and subsidies to placate all of them." (1984:61). The growth of unproductive government expenditure argues Bardhan choked off productive capital accumulation and led by the 1970s to industrial stagnation. The very detailed discussion of the constraints facing the state is juxtaposed with a very simple discussion of what the state should be doing. The only potential state policy analysed by Bardhan is public investment. How exactly his political economy influences all those other factors relevant for growth - mobilisation of tax revenues, learning, technology policies, provision of education and health, complementarity between investment projects and so on is never discussed.

2.2.2. The Relation between Different Theories

Chapter II showed that numerous variables have been proposed and tested as potential determinants of growth but there is no way to reconcile these findings. There is the same problem with the political economy school. Each political economy seeks to answer its

own question within a sheltered terms of reference, it is not clear how any of these relate to each other. Harriss-White (2003) finds social structures of accumulation (see above) constrain the local state in India. Chibber (2003) argues the urban bourgeoisie were crucial in undermining the developmental aspirations of the state in the 1950s. Byres (1981) argues the rich peasantry has exercised increasingly successful 'class-for-itself' action since the mid-1960s and generated a political economy of agricultural subsidy, draining the state of resources to feed politically necessary but economically unproductive transfers. Bardhan (1984/1998) argues an uneasy coalition of the big bourgeoisie, large farmers and civil service has been bought off by the state through unproductive subsidies at the expense of productive public investment. Kohli (1990) argues efforts at liberalisation in the mid-1980s in India failed because the balance of organisational strength and material interests in the Indian polity would lose out and so opposed reform. Varma (1998) argues the defining feature in Indian political economy has been the changing nature of the middle class and its growing baleful influence on the state. Herring (1999) argues that it is rather the incoherence of the class structure that presents the strongest constraint on the state. The central bureaucracy is permeable to individual capitalists who can selectively manipulate the state through particularistic ties, family, school, marriage, and caste. This 'embedded particularism' has worked against the sort of state-capital relationship, which empowers the state to act against some in the interests of all, to pursue corporatism or enforce social compacts. There is very little effort to explore the ways in which these different political economy explanations relate to each other, whether they are all true, contradictory or complementary.

2.2.3. The Lack of Dynamics

The political school has catalogued the various ways in which the state is constrained from implementing 'ideal' growth promoting policies. Rarely is it explored how these constraints change over time. Without dynamics such analysis is wooden, deterministic and a-historical as events overtake theorising. Bardhan (1984/1998) argued there was a political economy of unproductive subsidies undermining productive public investment.

This argument is difficult to reconcile with the sharp increases in public investment that took place in India during between 1951 and 1964 (Chapter V) or early 1980s (Chapter VII). The liberal-pluralist tradition sees the principal constraints on the state as political in origin. A notable example in the case of India is that of the stalled efforts at liberalisation under Rajiv Gandhi (1985-89). Kohli (1990) concluded business groups and the middle classes were broadly in favour, while the Congress rank and file, the moderate left opposition, and rural groups were against. The latter groups he argues being more numerous compelled the state to backtrack on liberalisation under the compulsions of democracy. Such an explanation is difficult to reconcile with the more successfully sustained efforts at liberalisation after 1991. This problem echoes a key idea of this thesis. When analysing economic growth, all too often long-run averages are taken and a long-run explanation sought. This fails to acknowledge that growth in India and other LDC's is a process characterised by periods of stagnation, growth spurts, structural breaks, volatility and instability. Just as we need to begin theorising about economic growth recognising this empirical fact we need to root our political economy analysis in efforts to explain such patterns. We need to begin with a political economy that lends itself to dynamic analysis and can model sharp changes in economic growth. To take Bardhan (1984/1998) as an example, how the three dominant proprietary classes emerged and changed over time. How in this political economy context public investment and growth increased after 1951, how both declined after 1965, how both increased in the early 1980s, and why growth was sustained despite cuts in public investment in the 1990s.

3. An Integration of the Economic and Political Schools

Fine and Stoneman (1996) argued that as of 1996 attempts to integrate these two schools were limited. After 1996 a number of new efforts have emerged, this section makes a critical review of some of these. Such criticisms include their stylised and mathematical approaches. A look at work by Khan (1996-2001) shows that he is seeking answers to questions different from those posed in this thesis.

3.1. Stylised and Mathematical

Attempts to integrate the political and economic schools have limited relevance. A desire to make the maths comprehensible has narrowed the analytical perspective. One such example is Grabowski (1994) who analysed the process by which the developmental state emerges and the constraints that exist on its capacity to successfully intervene to promote learning. Export-led development argues Grabowski requires prior learning in the use of new technology through production for the domestic market (import-substitution). The success of government policy in promoting learning depends on the states ability to make rents (subsidies and protection) conditional on learning. The credibility of the threat to withdraw protection is directly linked to the size of the domestic market. With a large domestic market the state can withdraw protection and promote another sector or firm making the threat to withdraw rents more credible. In a small market it is more likely only one firm in an industry can be established so the threat to withdraw protection is less credible. There are problems with this argument. South Korea, Taiwan, and Singapore have had successful developmental states. To argue they are characterised by large domestic markets when compared to those developing countries without sustained successful developmental state outcomes such as Brazil, India, Mexico, and Pakistan is very problematical. Additionally trying to link credibility to one single variable – the size of the domestic market is troublesome – this cannot explain how the developmental outcomes of state intervention vary so strikingly over time. A change in the size of the domestic market cannot for example explain the successful developmental-state type outcomes in India between 1951 and 1965 and much less successful period between 1965 and 1980.

Huff et al (2001) extend Grabowski's model in some respects, their analysis is mathematically more elegant but ultimately the model is empty of explanatory power. They develop a multi-period model to capture the interaction of the state with the private sector. The model examines more closely the features of the developmental state

highlighted by Leftwich (2000). The first three (a developmental elite, relative autonomy of the developmental state and a powerful competent and insulated economic bureaucracy) they argue are important initial conditions. The next three (the capacity for effective management of private economic interests; and a mix of repression, poor human rights, legitimacy and performance) they argue are likely only to emerge over time. In their model the state undertakes investment complementary to private sector investment (infrastructure, training, social overhead capital etc), at the cost of forgone consumption. The private sector responds with more directly productive investment that generates economic growth. A soft state is unlikely to overcome the opportunity cost of forgoing current consumption. If the private sector believes the state to be soft it is unlikely to invest. The state requires credibility, followed by reputation building and reinforced by success to mature into a developmental state. Huff et al (2001) model the process as a repeated prisoner's dilemma game, with simultaneous investment by each player. The developmental state is one that manages to convince the private sector by building up a reputation it won't renege[21] and reduce investment for higher current consumption. Echoing a comment from chapter II, "the content is stripped of its broader historical and social framework in deference to the requirements of the axiomatic and model-building associated with methodological individualism." (Fine 1998:3). History in the model is simply a sequence of prisoner's dilemma type games. There is no explanation of where initial credibility comes from or why some states are able to establish reputations for being hard. A developmental state is defined ex ante as one that has not reneged and built up a reputation for investing rather than consuming.

3.2. Answering Different Questions

Khan in various works between 1996 and 2001 takes three criteria and uses them to model the emergence, constraints on and outcomes of state intervention in general and developmental states in particular. These three are the nature of patron-client regimes,

[21] Or 'confess' in the language of a typical prisoner's dilemma game.

primitive accumulation[22] and learning. For example the emergence of both economic dynamism and corruption in East Asia (South Korea under President Park and the Kuomintang in Taiwan) he attributes to a distribution of social power which sustained patrimonial networks. The state was able to enforce rights and re-allocate/ change them at low cost. The state was able to channel primitive accumulation towards creating a dynamic capitalist class. In a clientelist regime such as India state officials can be challenged by other officials and private agents in competing clientelist coalitions. Rights are likely to be allocated, not to those able to use them most efficiently but to those with superior organisational power. Competition resulted in the creation of excessive new rights, excessive entry into industries and white-collar employment, and transfers to retain political allegiance rather than promote learning. Such a difference Khan also argues helps explain why primitive accumulation in Pakistan and Korea in the 1960s led to political conflict in the former and created a dynamic class of capitalists (chaebols) in the latter. In both rapid accumulation was made possible by the central allocation of resources to selected industries intended to accelerate re-investment and technology acquisition. In Pakistan mobilisation by excluded groups forced the state to re-allocate rents from promoting learning towards non-capitalist groups in an attempt to maintain political stability (Khan 2000d).

3.2.1. Primitive Accumulation

Khan's framework has proved useful in explaining why Pakistan has failed to grow as rapidly as South Korea over several generations but it is less suited to analyse episodes of growth and stagnation. Khan's model is based on the transition to capitalism, how primitive accumulation may or may not assist in the creation of a class of dynamic capitalists. This thesis shines a closer spotlight not on primitive accumulation but variously at how the state can influence the allocation of the surplus. This can occur through domestic finance, the state budget, retained earnings, and international capital.

[22] "We may define primitive accumulation as the transfer of assets, most notably land, by non-market means, from non-capitalist to potentially capitalist classes, and usually with state compliance or mediation:

3.2.2. Episodes of Growth and Stagnation

This thesis explains the role of the state in promoting episodes of growth and the constraints faced by the state in case of episodes of stagnation. Khan by contrast is looking at comparative growth over the longer-term. Among his examples are how a long history of political mobilisation of non-capitalist classes in pre-Independence Pakistan and India has left a very different social structure than in South Korea where Japanese colonialism smashed the organisation of pre-capitalist classes. Between 1960 and the mid-1980s South Korea was able to channel resources to a small group of capitalist and ensure a high rate of productive re-investment. In Pakistan by contrast the same model was undermined by the mobilisation of non-capitalist classes which forced the re-allocation of resources in attempts to maintain political stability, at the cost of productive investment (Khan 2001d). Another example from Khan is the historical integration of Chinese capitalists into local political elites in Thailand. By the 1970s Thai capitalists were able to run their own political factions to a much greater extent than other LDC's. The state was correspondingly unable to allocate rents to enforce learning and productivity growth. The allocation of subsidies depended more on political bargaining than economic performance (Khan 2000b). In such examples the emphasis is on long-term historical processes, class formation and colonialism in particular. In order to explain sharp changes in economic growth Khan resorts to ad hoc explanations from outside his model. The stabilising of rent-allocation in Malaysia, political stability after 1969 and high growth he explains as an unintended consequence of the 1969 riots and subsequent adoption of the New Economic Policy (NEP). This corporatist type arrangement of the NEP consolidated the potentially competing Malay clientelist groups into a unified structure and established their political dominance over Chinese capitalists. Chinese capitalists were taxed effectively in a centralised and stable manner to benefit emerging Malay intermediate classes (Khan 2000b). Rapid growth in Pakistan after 1958 and Korea after 1961 is explained by the military coups which permitted a temporary

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by force majeure, whether via theft, eviction, or purchase at a nominal price." (Byres 2005:83).

cessation of distributive conflicts and permitted the allocation of resources to a small group of industrialists, rapid accumulation and growth (Khan 2001d). This thesis moves away from the grand historical view and builds a framework that begins with the attempt to model sharp changes in economic growth over the medium-term.

3.2.3. Use and Origin of Rents

Khan defines rents by their purpose or what they accomplish. These include monopoly rents, natural resource rents, transfers to maintain political stability, Schumpeterian rents, learning rents, and monitoring and management rents (Khan 2000c). This thesis also explores how the state is able to mobilise those resources.

4. The (Economic) Role of the State: Finance

This section explores the financial role of the state in allocating the economic surplus to those able to invest productively. This section also explores the four complementary means of doing so, mobilising resources through the domestic financial system, through the state budget, influencing the profitability of the private sector (accumulation through retained earnings), and international capital.

4.1. The Allocation of the Surplus

Neo-classical economics holds there is no problem in transferring the surplus. Individuals are rational and exchange is voluntary, under perfect competition, individuals will distribute consumption intertemporally efficiently. Theories such as the Life-Cycle and Permanent Income Hypotheses emphasise different reasons why individuals may save. Profit maximising firms compete for these resources and so ensure they are allocated towards an optimal portfolio of investment projects. Formally, the interest rate

will be equated to the marginal efficiency of capital.

The neo-classical theory is of limited relevance in a developing economy. Those to whom the surplus is allocated will continue to accumulate and become future capitalists, those saving from income will be left behind. The current allocation of the surplus will have long-term path dependency in class formation. A relevant example is the decision of the Pakistani State in the 1950s. This involved a political decision to favour one group (migrant Gujarati merchants) over any other. By the late 1960s this group were the rich industrialists that have dominated the Pakistani economy subsequently. A further critique of the neo-classical model is the black box at the centre of its analysis. The model assumes financial intermediaries automatically emerge to facilitate the transfer of the surplus. In developing countries the state is likely to play the most important role, through promoting the banking system, taxation/ subsidies, influencing the rate of profit (hence retained earnings) and influencing patterns and levels of the flow of international capital. Together these criticisms imply that the role of the state in allocating the surplus must be analysed as a question of political economy. An 'efficient' allocation is unlikely once we consider political economy factors. Groups may block the allocation of the surplus to an emerging capitalist class even if as in neo-classical theory they are maximising their interest income and capitalists maximising growth/ profits. Groups may resist taxation, the revenues from which are intended for productive subsidies even if they may receive higher incomes in the future from growth of GDP or increased employment. Groups may block such *potentially* Pareto optimal allocations for two reasons, one connected with commitment and the other to political power. In the case of commitment we have what Acemoglu (2002) called a 'Political Coase Theorem'. When property rights are well defined and there are no transaction costs economic agents will contract to achieve efficient (output or surplus maximising) outcomes irrespective of who has the property right. Extending this to the political sphere would imply that economic and political transactions would create a strong tendency towards policies and institutions that achieve the best economic outcome regardless of which social group has political power. The surplus in other words would be allocated by the state to those best able to invest it productively and those from whom the surplus was mobilised would receive a credible

promise of dividends or higher employment or some other tangible future reward. In reality groups may block such transfers because there can be no credible or enforceable commitments that they will be compensated once economic change has occurred. The state may tax individuals and use the money to subsidise capitalists but there can be no credible commitment that the state will then be able to tax those capitalists to the benefit of the original taxpayers. The second related reason is that existing powerful interest groups may block the introduction of 'efficient' transfers because it may simultaneously affect the distribution of political power. The prospect of the state being able to tax a newly created capitalist class may be reduced once they have accumulated and gained added political leverage over the state and other classes in society. There is also a socio-political question whether groups would prefer the status quo to an alternative of higher income/ rapid industrialisation where another group had even higher incomes. A case in point is the massive political mobilisation that occurred in Pakistan in the mid-1960s. Groups (intermediate classes) who conceivably could have eventually benefited from rapid industrialisation mobilised and forced the re-allocation of rents from productive investment to unproductive transfers (Khan 2000d). The image of a small group of capitalists luxuriating in enormous profits was too much to bear, regardless of the very rapid economic growth then being experienced.

4.2. Domestic Capital: The Financial System and Economic Development

4.2.1. The Economic Role of a Financial System

Financial markets have five basic functions, to mobilise savings, to allocate resources, to facilitate risk management, to monitor managers and exert corporate control, and to facilitate the exchange of goods and services (Levine 1997). Mobilisation is assisted by the creation of small denomination financial instruments that provide opportunities for households to hold diversified portfolios and invest in efficient scale firms - in practise buying and selling fractions of entire firms. By enhancing risk diversification, liquidity and the size of feasible firms this can improve resource allocation. Financial markets and

institutions may arise to ease the trading, hedging and pooling of risk. It is difficult and costly to evaluate firms, managers and market conditions. Individual savers may not have the time or capacity to collect and process relevant information. Pooled groups of individuals under the auspices of a financial intermediary can share the fixed costs of acquiring and processing information about investments. The financial sector also provides liquidity and debt instruments that can facilitate the exchange of goods and services.

4.2.2. The Role of the State in a Financial System

The state has six potential roles in a financial system in an LDC, i) to protect deposits in a fractional reserve system, ii) to mobilise domestic savings, iii) to allocate resources to projects essential for development, iv) to create institutions to mobilise private sector savings, v) to correct market failures that may exist in the allocation of credit to the small firms, and vi) protect high-debt financial systems[23].

4.2.2.1 To protect deposits

In any fractional reserve banking system there is a possibility of a run on deposits leading to a collapse of the financial system. This creates the need for prudential regulation and deposit insurance. The banking system differentiates between good and bad borrowers, builds up expertise in evaluating borrowers, and establishes long-term relationships with customers. Bernanke (1983) blames the severity of the 1930s economic depression on the interruption of these relationships. The (temporary) shocks between 1930 and 1933 and resulting disruption to long-term relationships undermined the effectiveness of the financial system in performing these roles. Small businessmen, farmers and households

[23] The last is not discussed here due to the limited relevance of this outside a small number of SE/E-Asian countries.

found increased difficulty in acquiring credit. Temporary shocks generated long-term constraints in the supply of credit.

4.2.2.2 To mobilise domestic savings through the state budget

Wade (1990) focuses on the states role in allocating resources for investment, Amsden (1989) in accelerating learning, Evans (1995) in promoting certain industrial sectors, and Khan (various) the creation of rents. The role of subsidies and state expenditure presupposes the mobilisation of resources but little attention is paid to how this is achieved by the state. Krieckhaus (2002) is one exception and notes that the state played an important role in resource mobilisation in East Asia. In Korea state savings (5.6% of GDP) accounted for one-third of total savings and in Taiwan (10% of GDP) between one-third and one-half. In general the literature goes no further than an implicit discussion of the state's role, hinting that individuals have a 'psychology of impatience', are collectively irrational and place an excessive premium on current consumption. Or again implicitly that the state should disregard personal preferences and impose a more rational public interest, by forcing down current consumption and boosting the savings rate through the state budget. More detailed discussion has been taken up by the extreme left, and the discussion of collectivisation as a means to mobilise a surplus from an 'irrational' peasantry class. "In a socialist planned economy, both the structure of the social product and the disposal of it are subject to conscious, rational determination on the part of the socialist society....the vital need for the mobilization of the economic surplus generated in agriculture" (Baran 1957:424).

4.2.2.3. Allocating resources to projects essential for development

The state has an important role in allocating resources from the financial system towards projects essential for economic development, otherwise not likely to be undertaken by the private sector. This may be for many reasons, the long-gestation of certain investments

such as power-supply, the limited size of domestic capital markets, the risk of large investments without precedent in a country undergoing the initial uncertainties of industrialisation, and the fact that much of the benefit from such projects is external to the original investment. E.g. investment in energy supply may not in itself be profitable, but the social benefits of creating profitable investment opportunities in private sector industry may be enormous (Hirschman 1958). A private sector firm without recourse to general taxation is unlikely to be able to draw back sufficient of these benefits to make the project worthwhile.

Public enterprises in Taiwan were concentrated in upstream sectors, in "petroleum refining, petrochemicals, steel and other basic metals, shipbuilding, heavy machinery, transport equipment, fertiliser – in addition to the standard electricity, gas, water, railway, and telephone utilities." (Wade 1990:179). Sectors where the efficient scale of production was very capital-intensive and large relative to both factor and product markets, and where linkages to downstream enterprises were high. The output share of public enterprises consistently exceeded 12% of GDP between 1951 and 1980, over 30% of total national investment[24], and by the 1990s over 50% of total investment (Amsden 2001). In Korea the figures were much less, 5-7% and 20-22% respectively. In Korea by comparison the state facilitated and co-ordinated foreign borrowing by privately owned firms, "they borrowed from abroad with credit guarantees and subsidies from the government. This helped them grow very large, with high debt ratios, yet maintain their family ownership structure." (Amsden 1989:128-9).

Government influence over the price and allocation of bank lending to the private sector was central to economic development in Japan, Continental Europe, East and South-East Asia and Brazil. Priority lending targets were established by sector and tax incentives given to encourage lending to particular sectors. The state also assisted in the provision of stable long-term finance by creating specialised development banks[25]. The need to socialise risk applies in the case of those sectors exposed to correlated risk such as

[24]Taiwan had one of the largest state sectors outside the communist bloc (Wade 1990:176-7)
[25] Such long-term financing institutions in India have included the IDBI, IFCI, and ICICI.

interest rate changes or recession. This applies particularly in sectors with high minimum efficient scale and large volumes of sunk capital. This necessitates a further role for the state, to reduce the risk of financial instability, through deposit insurance, lender-of-the-last-resort facilities, subsidies to firms in financial difficulties, banks shareholding in companies, and government ownership of banks (Wade 1990:366). A second option is for a closer relation between the credit suppliers (banks) in company management. This can strengthen the importance of voice (efforts to restructure the company in case of difficulties) relative to exit (selling shares in the secondary market). Financial systems have proved most successful in promoting development when the state has effectively subordinated them to the goal of economic development (Chang and Grabel 2004:Ch10). The principal criteria for evaluating the performance of the financial system in this thesis will be consideration of its functional efficiency, whether it promotes rapid economic growth, rather than criteria such as liquidity and international integration.

4.2.2.4. Creating Institutions to Mobilise Private Sector Savings

The state can also play an important role in mobilising resources indirectly, by creating institutions to mobilise private sector savings. Risk-averse households are more likely to be responsive to deposit security and intermediation efficiency than to interest rates. Household savings depend crucially on the availability of an infrastructure for deposit collection, in particular on the extent of the bank branching network. The state has a crucial role in deepening the banking system. The state can intervene by regulating the spread between loan (higher) and deposit rates (lower). This creates an economic rent for banks relative to the situation prevailing in a fully liberalised financial sector. With higher returns to intermediation banks will have a stronger incentive to increase their own deposit base, by for example opening new branches in un-served rural areas. To preserve rents in the long-run the state needs to restrict competition in the banking sector which could eliminate the rents (Koy-Fay and Jomo 2000). Under this model of financial restraint the dominant mode of competition will be non-price competition, such as locality and quality of service. In India, rather than rents providing an incentive for

expansion of the private sector it was the nationalised banking sector that led the expansion of branches. The population per bank branch declined from 90,000 in the mid-1950s to around 14,000 in the early 1990s or from 65,000 in 1969 to 11,500 in 1991 (Bhatt 1991).

4.2.2.5. Correct Market Failures in the Allocation of Credit to Small Firms

The state has an important role in ensuring finance is available on reasonable terms for small firms. Much economic theory and empirical work assumes that capital markets are perfect with a representative firm facing an infinitely elastic supply of capital. Investment then depends on the demand for and cost of capital, state-directed credit will be ineffective. In the presence of transaction costs or information asymmetries the supply of credit will be imperfectly inelastic. External equity is subject to agency costs associated with the verification of firm performance. Legal and accounting systems in LDC's may make verification more difficult. There are likely to be scale economies in verification leading to a situation in which only large firms can access private sector capital markets. With asymmetric information firms may find credit is rationed at a fixed rate of interest on the basis of criteria that differ between large and small firms. Small firms may be constrained in investment by internal financing. Directed credit can then be effective in overcoming credit rationing faced by small firms. Eastwood and Kohli (1999) find that internal finance, debt finance and equity finance are imperfect substitutes for one another in India and in less than perfectly elastic supply at the firm level. Large firms with new investment opportunities were able to obtain external finance at the margin but small firms were not. The financial constraint that directed credit to small firms in India was designed to relax does appear to have existed.

4.3. Tax, Transfers and Subsidy

4.3.1. The Economic Role of Transfers and Subsidies

In the standard Heckscher-Ohlin model the assumption of perfect knowledge (technology) is the key assumption that renders all countries in the same industry equally productive. The only policy choice for an uncompetitive country is to adjust prices (reduce wages) not to develop know-how (subsidise learning). Amsden (2001) questions these assumptions arguing that there are three generic knowledge capabilities that nurture knowledge-based assets. These she notes are production capabilities (the ability to transform inputs into outputs), project execution skills (the skills necessary to expand capacity) and innovation capabilities (the skills necessary to design entirely new products and processes). Given differences in production capabilities productivity will tend to vary sharply among firms in the same industry[26]. Endowments and hence the price of land, labour and capital no longer uniquely determine competitiveness. Low wages (labour-abundance) may be no compensation for high productivity (knowledge-abundance) in a rich country.

"In late industrialising countries, the state intervenes with subsidies deliberately to distort relative prices to stimulate (manufacturing) economic activity." (Amsden 1989:8). Such a shift in production is necessary to allow firms to learn. "The subsidy serves as a symbol of late industrialisation, not just in Korea and Taiwan but also in Japan, the Latin American countries, and so on. The First Industrial Revolution was built on laissez-faire, the Second on infant industry protection. In late industrialisation, the foundation is the subsidy – which includes both protection and financial incentives. The allocation of subsidies has rendered the government not merely as a banker, as Gerschenkron (1962) conceived it, but an entrepreneur, using the subsidy to decide what, when, and how much to produce. The subsidy has also changed the process whereby relative prices are determined." (Amsden 1989:143-4). Late industrialisation is a case of pure learning-by-doing, utilising technological innovations that have been already commercialised in developed countries[27].

[26] Amsden makes distinguishes this 'information failure' and the 'imperfect information' discussed by (Akerlof 1970; Stiglitz and Weiss 1981).

4.3.2. Role of the State in Transfers and Subsidies

The most obvious pre-requisite for subsidies is that the state raises mobilise sufficient resources. Rapidly growing Asian NICs did not have small states as was suggested by Kuznets (1988) and others. They have been successful in mobilising the resources necessary to subsidise the industrial sector extensively. Wade (1990:173) notes that adding government and public enterprise gross investment to government consumption in Taiwan reached 25% between 1963 and 1973, then increased to 33% by 1980. 'Socialist' India and Tanzania had totals of only 20 and 25% in the later period.

4.4. Retained Earnings and Profitability

4.4.1. The Economic Role of Retained Earnings and Profitability

The state can influence private sector profitability and hence their capacity to finance investment from internal resources.

4.4.2. The Role of the State in Boosting Retained Earnings and Profitability

The state may influence the distribution of income by shifting income from wages to profits. This contrasts with neo-classical economic theory where there is no political role in the determination of income distribution. All factors of production will be paid their marginal products and income distribution is fully determined by the market. This view is mistaken, all prices are potentially political, wages and interest rates in particular (Chang 1999). Regulations affecting product markets such as safety, pollution, and import controls mean that virtually no price is free from politics. This role of the state

[27] This work has its genesis in the tradition of the infant-industry phenomenon.

draws attention to the idea that development is an inherently conflictual process[28].

Potential mechanisms to ensure high profit rates are many and varied. Kuznets (1988) emphasises the role of 'flexible' labour markets and union repression that allow rapid growth in labour demand, and ensure productivity growth consistently exceeds wage growth. Many late industrialising countries retained strict controls on entry into industries to prevent over-expansion and declining profitability. Such controls were used frequently (in Taiwan) in sectors where the minimum efficient scale of production was large (Wade 1990:185). In many sectors controls on commodity markets prevented firms competing with one another on the basis of price and undermining profitability (Amsden 1989:152). Table 4.1 shows that throughout the period of rapid industrialisation in Korea the government maintained stable rates of profit among the (privately owned) chaebols and in light industries. Koy-Fay and Jomo (2000) discuss the same process in the context of the financial sector in Malaysia.

Table 4.1 Profitability of Light and Heavy Industry: Average Rate of Return on Investment, 1972-1984

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Heavy Industry	7.92	10.06	12.45	9.34	9.41	8.96	9.69	9.32	7.36	9.11	8.56	9.20	9.75
Light Industry	11.00	15.30	9.45	9.65	11.50	11.57	13.80	12.50	11.40	11.28	9.13	10.15	9.52

Source: (Amsden 1989:89).

4.5. International Capital

4.5.1. The Economic Role of International Capital

International capital in its various forms can supplement domestic capital (portfolio and lending) and also add directly to production (foreign direct investment). These are examined in turn.

[28] This idea is taken up further in section 6.

4.5.2. The Role of the State vis-à-vis International Capital

The state has five principal roles with respect to international capital, i) co-ordinating foreign borrowing, ii) influencing the end use of foreign debt, iii) controlling the disruptive potential of short-term capital flows, iv) influencing the composition of capital inflows, and v) segmenting domestic and international capital markets.

4.5.2.1. Co-ordination of Private Foreign Borrowing

The state needs to coordinate private foreign borrowing. International capital now comprises 70 times the volume of world trade and 80% of net global foreign exchange transactions have a maturity of seven days or less. It is important for the government to maintain information on government holdings of currency reserves to private and public foreign currency debt. Un-coordinated financial liberalisation in Korea in the early 1990s was a disaster. The domestic banking sector drove explosive growth in Korea's foreign debt, from $44bn in 1993 to $120bn in 1997; much of this was private, and 65% of it short-term (Wade 1999). Almost one-third of total foreign debt moved outside the scope of financial regulation and supervision, though it constituted foreign exchange liabilities for the government.

4.5.2.2 Influencing the End Use of Foreign Debt.

The state needs to influence the end use of foreign debt to ensure it is used for productive developmental purposes. Prior to financial liberalisation in the 1990s East and South East Asia had tightly coordinated allocation and access to foreign loans. After liberalisation in the 1990s capital inflow into five Asian NICs[29] increased from $47bn in

[29] South Korea, Malaysia, Indonesia, Thailand and the Philippines.

1993 to $93bn in 1996. Much of the inflow took the form of borrowing in dollars and Yen by banks, investment houses and insurers and was invested in short-term debt (Wade 1998b).

4.5.2.3. Controlling the Disruptive Potential of Short-term Capital Flows.

The state has an important role in controlling the disruptive potential of short-term capital flows. Foreign loans are often associated with the problems of maturity mismatch, where long-term investment is financed by short-term loans. Capital outflow can then lead to a debt deflation where asset sales to realise debt repayments lead to a downward spiral in asset prices. Accompanying devaluation of currencies will increase the cost of imported intermediate goods. High debt/ equity ratios worsen the problem by generating a bigger multiplier effect to a given reduction in demand and cash-flow. Such a situation can become a crisis without poor underlying economic fundamentals. Or of self-fulfilling crises, "the expectations, even the prejudices of investors become economic fundamentals." (Krugman 1999:110). A self-fulfilling withdrawal of short-term loans can be fuelled by the recognition of each investor that others are withdrawing; since the debt is short-term it is rational for each investor to join in the panic. There is a large literature exploring the inherent instability of a private financial system (Keen 2001:Ch10). There have been very sharp reversals in capital flows during the 1990s. In Mexico between 1993 and 1996, a net shift of $55bn (or 12% of GDP), in South Korea 1996/97 $40bn (9% of GDP), and Thailand 1996/97 $23bn (15%). Likewise capital inflows can occur in a pro-cyclical manner. There is a high correlation between domestic financial booms and capital inflows. Kohli (2001) verifies this for the case of India in the 1990s. Rapid inflows of foreign capital raised domestic expenditure and the demand for non-traded goods the rupee appreciated coincident with capital (in)surges in both 1992-95 and 1996-97.

4.5.2.4. Influencing the Composition of Capital Inflows.

The state has an important role in influencing the composition of capital inflows. In general FDI has greater potential benefits than short-term portfolio investment. FDI was far more stable during the Mexican crisis in 1994/95 and Asian crisis in 1997/98. Policy can distinguish between short-term capital and FDI that is accompanied by technology transfer, capital equipment and management expertise.

4.5.2.5. Segmenting Domestic and International Capital Markets.

To implement a sectoral industrial policy the state needs to segment domestic and international capital markets. With firms free to borrow on international markets and foreign banks free to lend the governments control over sectoral lending will be weakened, or "more generally, foreign exchange controls are needed to intensify the cycle of investment and reinvestment within the national territory." (Wade 1990:367). There is evidence that capital controls in Malaysia in 1998 were effective in segmenting Malaysia's financial markets from offshore and international capital markets. Such controls were implemented transparently, efficiently and with no increase in petty corruption. As a result economic recovery was faster, employment and wages did not suffer as much, the stock market did better, interest rates fell more and inflation was lower (Kaplan and Rodrik 2001).

4.5.3. The Role of the State and Foreign Direct Investment (FDI)

The literature highlights both positive and negative effects of FDI, empirical evidence is mixed. The role of the state is to maximise the net benefits of FDI.

4.5.3.1. Theoretical Costs of FDI

There is a long tradition analysing the potential problems of FDI. The traditional critique

of FDI centres on ideas that MNC's tend to transfer inappropriate technology, could exercise power over political and economic conditions in the host[30], and were able to evade taxes through transfer pricing. There is a long history of thinking among followers of the dependency school that foreign investment will perpetuate under-development and increase internal polarisation within the periphery (Hunt 1989:Ch7). In the long-run "foreign investment must be looked upon as a method of pumping surplus out of under-developed areas, not as a channel through which surplus is directed into them." (Baran and Sweezy 1966:110). There is a long history of such thinking being influential in the Indian nationalist movement, Nehru, (1946:544), and beyond (Bagchi 1976).

4.5.3.2 Theoretical Benefits of FDI

MNC's that develop forward and backward linkages in the host economy are more likely to be beneficial than those that operate as highly integrated units[31]. Competition in one sector may be beneficial to firms in others through price reductions and forward linkages to customer firms. FDI may also create demand for local output, these 'backward linkages' may strengthen supply industries, in turn via forward linkages benefiting other local firms. The most important linkage effects are through technological externalities. Local firms may adopt MNC technology through imitation or reverse engineering (the demonstration effect). Without FDI it may be costly for local firms to acquire the necessary information relevant for new technologies. The effect represents a potential positive externality. Workers trained by an MNC may transfer knowledge to a local firm (knowledge spillover effect) or start their own firms (the labour-turnover effect). Rhee (1990) studied the importance of this effect for the textile sector in Bangladesh. Initial investment and training by the Korean firm Daewoo led to massive transfer of skills and learning to other textile firms by the movement of workers from the pioneer firm. Rhee

[30] The role of copper MNC's in the 1973 coup in Chile being an obvious example.

[31] In a good equilibrium the economy specialises in the production of complex final goods, a large variety of specialised inputs and wages are high. In a bad equilibrium the economy specialises in the production of simple labour-intensive goods and a low variety of specialised inputs and wages are low. Rodriquez-Clare (1996) shows that when both backward and forward linkages materialise the economy ends up with a deep division of labour and high wages. MNC's in East Asia were successful in creating backward linkage

calls this 'the catalyst model of economic development'. The ability of local firms to absorb technologies introduced by MNC's may be a key determinant of whether or not labour turnover occurs as a means of technology diffusion in equilibrium[32]. MNC's may transfer technology to firms that are potential suppliers of intermediate goods or buyers of their own products (a vertical linkages effect).

Aitken and Harrison (1999) found a positive relationship between foreign equity participation and plant performance for 4,000 firms in Venezuela. They also noted a possible negative spillover effect from FDI, competition forced domestic firms to lower output. Saggi (2002) notes that in 1995 over 80% of global royalty payments for international transfers of technology were made from subsidiaries to their parent firms indicating the possibility of learning effects. Markusen (1995) notes the potential for technology transfer is at least high, the inter-industry distribution of FDI shows that MNCs are concentrated in industries that exhibit a high ratio of R+D relative to sales and employ a large share of technical and professional workers. Other work confirms the presence of positive spillovers (Grossman and Helpman 1991a; Chuang and Lin 1999; Kokko 1994).

4.5.3.3. The Role of the State in Promoting Benefits from FDI

The state has an important indirect role, to maximise the net benefit from FDI. The magnitude of positive spillovers has been found to depend on local endowments of skills and technology, the capability of local educational and research institutions, local market size, technological capability of local firms and various policy factors (Pantibala and Pedersen 2002). Local firms and workers in developing countries need to have minimum capabilities to absorb new technologies and ideas in order to benefit from foreign

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effects to local suppliers (Hobday 1995).

[32] The superior technology employed by MNCs may give them a key advantage in competition and an incentive to limit knowledge diffusion to rivals. The key method may be to reduce labour turnover by offering higher (efficiency) wages. The resulting wage premium then has no necessary relation to the social value of the knowledge embodied in workers and technology diffusion is unlikely to be optimal for the local economy.

investment (Lall 1992). There are important public goods aspects of investment in R+D, meaning it would be likely under-supplied by private agents[33].

The state also has a potentially more strategic role. An industrial policy that targets particular types of technology can be important. Higher end technologies such as R+D investment generate more spillovers than low-end operations of MNC's such as data-feeding and coding operations (Pantibala and Pedersen 2002). Enforcing an export obligation on FDI is also important. FDI attracted by high domestic tariffs to produce for the domestic market in an LDC can lead to negative spillovers (Brecher and Diaz-Alejandro 1977). Within a protective regime MNC's may not be motivated to transfer new technologies to their affiliates due to the absence of competition. Initial technology advantages continue to provide them with an edge over local firms in protected local markets. Balasubramanyam et al (1996) find that FDI in export-promoting countries has a positive effect on economic growth and FDI has no significant effect on growth in import-substitution countries. Delderbos et al (2001) note that if the main motivation of FDI is to avoid trade barriers rather than being based on manufacturing cost and efficiency, limiting production to simple assembly operations may be the most cost-effective response so protection may reduce vertical linkages in manufacturing. Granting foreign firms unnecessarily large subsidies, reducing restrictions on profit repatriation, liberalisation of regulations on technology transfer, and exemptions on national labour and environmental regulations can lead to a race to the bottom. Japan, South Korea, and Taiwan mandated local content requirements (the proportion of local inputs used in the production process) with requirements set at low but increasing levels and limited royalties on technology licenses paid by partners of MNC's.

5. Production

The crucial role of the state with regards production is to ensure financial resources allocated to private sector firms are used productively, to either raise productivity in an

[33] Knowledge is a non-rival good (Romer 1990).

existing market niche (learning) or upgrade to a higher technology market niche.

5.1. Neo-classical Economics and Production

In the neo-classical paradigm there is no role for the state to promote growth, save for removing state created restrictions on the operation of the free market. An important and explicit theoretical rationale of liberalisation according to neo-classical economics is to achieve an efficient (static) allocation of resources (the theory of comparative advantage). The link to economic growth is implicit, rational individuals will save according to criteria such as the life-cycle hypothesis, profit maximising firms will utilise these available resources to invest efficiently. In a free market there is no such thing as growth that is too slow, growth will reflect the time preferences of individual agents.

5.1.1. Need for Learning

The theory of comparative advantage assumes that technology is freely available to all countries and firms which then operate on the same production function. Countries will settle on the appropriate capital/ labour ratio in accordance with their factor price ratios (determined by relative endowments of labour and capital) and shift effortlessly along the production function as these ratio's change (Lall 1992). There is assumed to be no problem in assimilating technology from developed countries, no adaptations are required and alternatives are available for all factor price combinations. All firms remain equally efficient and firm specific learning is unnecessary. Such traditional approaches to technology assume that innovation (movements of the production frontier rather than along it) is a completely distinct activity from mastering technology or adapting it to different conditions (the only admissible country differences are capital/ labour ratios).

In practise with imperfect knowledge productivity may differ among firms in the same industry. Technological knowledge is not easily transferred between firms and much

technology is tacit so requires learning. Firms will not be operating on the same production function. Simply 'getting prices right' may be insufficient for countries to compete internationally[34]. Neo-classical economics assumes innovation takes place in advanced countries and learning in LDC's is no more difficult than selecting the most appropriate among them (Lall 1992; Amsden 1997). There is actually less difference between innovation in developed countries and industrialisation based on learning already commercialised technology. "The First Industrial Revolution in Britain, toward the end of the eighteenth century, and the Second Industrial Revolution in Germany and the United States, approximately 100 years later, shared the distinction of generating new products and processes.....economies that did not begin industrialisation until about the twentieth century tended to generate neither, their products and processes being based on older technology. Economies commencing industrialisation in the twentieth century transformed their productive structures and raised their incomes per capita on the basis of borrowed technology." (Amsden 1989:3).

5.1.2. State Policy

A typical LDC is most competitive in price sensitive, low-value, low-priced items. An LDC could compete over time by trying to enhance it price competitiveness within its existing niche by extending hours, reducing overheads (subcontracting) and intensifying work conditions (a low road of competition). A high road of competition could consist of remaining in an existing production niche and raising productivity (learning), or upgrading to a less (price) competitive market niche to capture rents. State intervention is needed to push an economy up the high road of competition.

Neo-classical theory argues export structures are simply a product of comparative advantage, and factor prices and that the composition of exports does not matter. In practise, while many allocations may be (neo-classically) efficient some are more

[34] It could be that the price of labour needs to be negative in order for a country to have a comparative advantage in labour-using industries.

(dynamically) efficient than others. Growth in world trade, spill-over benefits for the whole economy are positively, and ease of market entry of competitors negatively, related to the technological complexity of a product (Lall 1999:1775). Specialising in the production and export of labour-intensive, simple manufactured goods or primary products will leave a country vulnerable. Where barriers to entry are low global competition will drive prices and profits down. These market conditions can apply both to product markets (primary products) or factor markets (unskilled labour). Rents arise from and define the act of innovation and the ability to appropriate rents is crucial for sustained income growth (Kaplinsky 1999). Countries have to raise productivity and product innovation faster than the decline in margins due to competitive pressures. These considerations rather than market or information failures[35] is what creates the potential for successful industrial policy by the government.

5.1.3. Market Failures in Learning

Much technology is tacit and to effectively master it extensive experience in use is necessary. Learning-by-doing may imply a lengthy and unpredictable period of losses as firms learn and adapt technology to make it more appropriate to developing country conditions. In theory private capital markets could fund firms through the period of learning. In practise uncertainty, risk and illiquidity mean private capital will be reluctant. This is especially relevant when economies are industrialising and the economy is undergoing profound structural changes where past history is a poor guide to evaluating future investment and lending decisions. Investment in learning by one entrepreneur in discovering a commercial niche that can be profitably exploited is likely to lead to rapid imitation[36]. Learning is an investment, the returns to which cannot be

[35] This being in the tradition of Stiglitz who takes Pareto Efficiency as the benchmark and government policy as a means to make the world look more like neo-classical theory. If there exists a wedge between social and private costs (an externality) taxation, subsidy or regulation can push the economy towards the overall social optimum. An optimal Pigouvian tax can replicate an 'efficient' allocation (Mas-Colell et al 1995:355).

[36] Rhee (1990) notes that the number of export-orientated RMG factories in Bangladesh exploded after the single firm Desh proved it was a profitable proposition at the end of the 1970s, by 1985 there were 700 such firms.

fully appropriated. Entrepreneurs in LDC's face similar problems to innovators in developed countries. While neo-classical economics subscribes to the need for patent protection to generate an incentive for innovation it advocates complete freedom of market entry in all other scenarios. Learning is likely then to be under-supplied so profits/ rents that reward and motivate learning may lead to a more dynamically efficient economy even if they are a sign of resource mis-allocation according to considerations of static/ allocative efficiency.

These various market failures may generate a need for intervention in both factor and product markets to direct resources to particular activities. By so allocating resources the state creates rents that both induce and facilitate learning by private actors. Policy needs to increase the expected payoff to learning, hence it is important to distinguish firms that are engaged in costly learning and those who simply imitate the results of others learning. Temporary trade protection may increase profits from learning but only for firms producing for the domestic market (Hausman and Rodrik 2003). Trade protection or export subsidies do not discriminate between innovators and imitators. Export subsidies could be good at discriminating between successful and unsuccessful performers ex-post. Providing subsidies or government credit contingent on exporting can allow policy makers to discriminate between firms.

There is a good chance learning rents will fail to generate growth. The failure of infant industries protected from international competition to become dynamic and stagnating on guaranteed profits is an often cited example. There are important pre-conditions for rents to promote learning. Rents must be allocated in a contingent manner, withdrawn from those firms failing to learn, export or reduce costs. The bureaucracy must be competent enough to allocate rent ex-ante to potentially dynamic capitalists or strong enough ex-post to withdraw them from failing capitalists. The relation of the state to various classes is important. To the capitalist class in order to enforce discipline, and ensure rents are contingent on the states desired performance criteria. The relation of the state to other non-capitalist classes must be such that they don't mobilise and dissipate efficient rents towards non-productive areas (Khan 2000b).

6. Institutions

There is a large literature looking at the effect of institutions in promoting economic growth (North 1990; Sokoloff and Engerman 2000; Rodrik et al 2002). This section looks at the related but under-researched topic of how institutions can mediate the (negative) relationship between conflict and economic growth. The first part defines development as a conflictual process, the second shows that conflict is bad for economic growth, the third demonstrates how conflict and state capacities to manage it will be measured here, and the fourth shows that institutions can reduce conflict. Existing analysis of institutions and conflict mainly considers those institutions compatible with neo-liberal economic theory. There are severe theoretical and empirical problems with this literature. This thesis has a broader institutional perspective. A repressive state, an inclusive state or an ideological state may help reduce the negative implications of conflict on development.

6.1. Development and conflict

Economic development is concerned with shifting resources from low to high productivity areas, and as such is an inherently conflictual process. The mobility of some assets will be limited; owners will then face problems of obsolescence and unemployment. Those having sunk investments in physical capital, skills, contractual relationships, and political patronage are likely to resist change (Chang 1999). Section 5.1 showed how the process of surplus allocation is inevitably a conflictual process. The dangers to development of ignoring conflict are profound. The failure to incorporate Bengali's during the decade of development in Pakistan under General Ayub Khan (1958-68) led to civil war in 1970/71 and the secession of Bangladesh.

6.2. Conflict is bad for economic growth

Easterly and Levine (1997) quantify the adverse impact of ethno-liguistic fragmentation on income, growth and economic policies in Sub-Saharan Africa. Alesina et al (1999) find that ethnically diverse cities in the US spend less on public goods. Goldin and Katz (1999) find lower public support for higher education and Goldin and Katz (1997) lower school graduation rates in US states with more religious and ethnic heterogeneity. Miguel (2000) finds lower primary school funding in more ethnically diverse districts in Kenya. Mauro (1995) and LaPorta et al (1998) find ethnic diversity predicts poor quality of government services in developing countries. Mauro (1995) and Annett (1999) find that linguistic or religious diversity leads to greater political instability. Rodrik (1999a, 2000b) finds ethnically polarised nations react more adversely to external terms of trade shocks.

6.3. Measures/ Descriptions of State Capacities

There are several works that seek to measure conflict and the conflict resolution capacities of the state. Rowthorn (1977) agreed that conflict was endemic in capitalism over the distribution of income. Conflict he argued occurred between prices relevant to capitalists (profits) and labour (wages) and generate inflation if the combined demands of both classes exceed total national income. The problem with using inflation as a proxy for conflict is that numerous other factors such as drought, not initially related to conflict cause inflation. Rudolph and Rudolph (1987) measure conflict that spills outside the normal political system. They record the activities of 'demand groups' such as labour, students, and agricultural interest groups. Their measures of conflict are indices such as strike activity, demonstrations and student indiscipline. The problem with such a measure is that it doesn't consider latent conflict. A powerful adversarial union need never strike, management or the government will concede quickly for fear of the consequences. The Rudolph's are actually considering a special case of conflict where contending parties are more equally matched and conflict results in a protracted struggle.

Kohli (1990) measures conflict occurring through the political system. He argues electoral competition and the struggle by political entrepreneurs for office has mobilised poorer and lower caste groups and politicised pre-existing social cleavages. Conflict he measures as the absence of enduring coalitions, policy ineffectiveness, and an inability to accommodate political disagreement without violence. Again this is too narrow, conflict need not necessarily only occur through the formal political system.

This thesis draws on this range of sources. From Rowthorn the idea that conflict between labour and capital and the role of profits/ income distribution is important (see 5.4). From the Rudoplph's that conflict can be society-centred and be manifest through demand groups, from Kohli that the capacity of the state to govern is an important determinant and result of the effects of conflict. We need however a more objective and encompassing measure of the conflict resolution capacity of the state. This measure is provided by state budgets. Budgetary allocations in which investment, tax revenue, national savings are rising are an indication that conflict is being successfully managed. Section 6.13 has argued discipline is necessary to induce learning, hence diversification and productivity growth are also signs that conflict is being successfully managed. It is a key idea of this thesis that conflict is endemic in development but the state can overcome conflict through a variety of institutions, inclusive, repressive or ideological.

Potentially the most important form of conflict is latent. This may not erupt into street protest or political turmoil but may induce the government to manage it through the budget. High levels of current expenditure, subsidies, over-manning in state enterprises, stagnant savings and tax revenue, declining levels of investment and few signs of learning are signs the state is paying more attention to conflict management than to development. Chapter VI shows that conflict in India erupted in the mid-1960s and can be measured by conventional indices – strikes, demonstrations, political violence etc. By contrast a massive increase in state fiscal deficits, subsidies and unproductive transfers partly funded by the growth of external debt was managing latent conflict during the 1980s (Chapter VII). The state was unable to control conflict through inclusive, repressive or ideological means so bought it off through the state budget. The budget for

this period captures an upsurge of latent conflict that would be missed by more conventional measures such as strike activity or demonstrations.

6.4. Institutions can reduce conflict

Easterly (2001c) finds that the ethnic conflict effect on growth in the original Easterly and Levine (1997) growth regressions disappears if institutions are of sufficiently high quality. Good institutions he finds also reduce the risk of wars and genocide. Rodrik (1999a, 2000b) explores how institutions may reduce the negative implications of external shocks. He finds when social divisions are deep and (his measures of) institutions of conflict management are weak the economic cost of exogenous shocks such as a decline in the terms of trade are magnified by the distributional conflicts that are triggered. He assumes latent social conflict is measured by the depth of pre-existing social cleavages in a society[37], these can exist along lines of wealth, ethnic identity, geographic division etc. Once latent social conflict and the quality of conflict-management institutions are controlled for Rodrik finds that various measures of government policy (trade policies, debt-export ratios, govt consumption etc) contribute almost nothing to explaining growth differentials before and after economic shocks.

6.5. Which Institutions?

Those institutions tested in the existing literature are mainly those theorised as being important in neo-classical economic theory, in particular, property rights and democratic political institutions. Easterly tests proxies for property rights. "Institutions that give protection to legal minorities, guarantee freedom from expropriation, grant freedom from repudiation of contracts, and facilitate cooperation for public services would constrain the amount of damage that one ethnic group could do to another. Such pro-business rules of

[37] This is not generally true as for example peaceful Zambia (73 different languages) and violent Zimbabwe (two main tribes, the Matabele and Shona) testify.

the game may prevent ethnic groups from expropriating business owners of a different ethnic group." (2001c:6-7). Rodrik (1999a, 2000b) examines institutions which 'adjudicate distributional contests within a framework of rules and accepted procedures without open conflict and hostilities'. These he argues include democracy, an independent and effective judiciary, an honest and un-corrupt bureaucracy, and institutionalised modes of social insurance. As proxies Rodrik uses measures of civil liberties and political rights, quality of governmental institutions, rule of law, competitiveness of political participation, and public expenditure on social insurance.

6.5.1. Property Rights: A Critique of Easterly (2001c)

New Institutional Economics (NIE) takes a straightforward view of economic growth arguing that stable property rights are the most important factor, in both physical property (land and capital assets) and also intellectual and copyright property (North and Thomas 1973). The experience of enough successful sustained episodes of growth, e.g. South Korea after 1961 and China after 1978 suggests stable property rights are not necessary and sufficient to ensure sustained economic growth. In Korea property rights were not stable but were regularly re-allocated to those able to use them most productively. The violation of collective property rights during the enclosure movement in Britain during the eighteenth century contributed to the development of the woollen industry by promoting sheep farming on the confiscated land. Land reform in Japan, Korea and Taiwan after WWII contributed to development. Property rights are a more complex question. It is important which property rights are protected and under what conditions. If there exist groups who can make better use of property, an efficient mechanism of transfer rather than protection will promote development. Development is inherently conflictual and involves a rapid re-allocation of rights to resources and income streams. Unstable property rights are a feature of rapid economic development. Stable property rights are only likely to emerge at high levels of development. Chang (2002) notes that protection of intellectual property rights emerged only towards the end of the nineteenth century in today's developed countries, long after industrial revolutions. Patent laws

until then lacked disclosure requirements, incurred high fixed costs in filing and afforded inadequate protection. Switzerland, among the most innovative European economies took until 1954 to acquire a patent law comparable to other developed economies, chemical substances remained unpatentable until 1978. This general pattern is also true for the range of neo-liberal institutions, an independent judiciary, clean and efficient bureaucracies, and good corporate governance institutions and financial institutions. Easterly (2001c) in his analysis of conflict and institutions is actually unearthing the result that countries at high levels of development have lower levels of conflict.

6.5.2. Democracy: A Critique of Rodrik (1999a, 2000b)

Democracies are now more commonly argued to be conducive to market orientated economic reforms. The mechanism is not often made clear but seems to revolve around the argument that open flows of information, guided by public opinion can coalesce around optimal (market) solutions. Sen (1999) makes one of the clearest expositions of this general argument arguing that economic and political freedoms will reinforce each other. The conceptualisation of economic needs depends on public debate and discussion, the guarantee of which requires basic political liberty and civil rights. Political freedom (democracy) generates an incentive for politicians to meet those needs. Famously Sen (1982) pointed out that no substantial famine has ever occurred in an independent country with a democratic form of government and a free-press. Rodrik (1999a) argues democracy also generates more predictable long-run growth rates, greater economic stability, handles adverse shocks better and has superior distributional outcomes.

A case study of India shows there is no reason to suppose that democracy will reduce conflict. Democracy can serve to sharpen existing social cleavages through continual pressures for competitive political mobilisation. In conditions of competitive party politics distributive issues along class, party, and ethnic lines tend to become rapidly polarised (Kohli 1990). A good example is impact of the 1969 split of the Congress

Party on the politics of the state of Gujarat. Indira Gandhis' branch of the Congress won political power in the state through appealing to backward groups, the Kshatriya, Harijan, Adivasis and Moslem. The rump of the old Congress retained the support of the high caste Patidars. The Patidar community until the 1960s had retained an uncontested dominance of the state, owning land, dairy co-operatives and being disproportionately well represented in educational institutions. The numerically dominant Khastriyas came to political power in the 1970s. This generated a separation of socio-economic power (Patidars) and control over local political institutions (Kshatriyas) which was resented by the Patidars who began to resist their political expulsion by force. In 1981 riots and violence spread throughout central Gujarat. Urban riots were centred among medical students in Ahmedabad where reservation policies for lower caste students were impacting on the chances of higher caste students. This pattern has been common across India. Bardhan argues, "the political arithmetic of group equity and democratic mobilisation, apart from bankrupting the state treasuries and debilitating the governments capacity to invest in necessary social economic infrastructure, has been eating away at the institutional insulation of administrative and economic decision making at the central, and in particular, at the state levels, with adverse consequences both for development and for governance." (2001:239).

There is widespread empirical evidence to show democracy is an outcome of development. The typical franchise during industrialisation in today's developed countries was tiny, in France between 1830 and 1848 only 0.6% of the population, and the 1832 Reform Act in England extended voting rights from 14 to 18% of men. Economic development promotes the pre-requisites for democracy (Lipset 1959; Rueschemeyer et al 1992; Huber et al 1993; Barro 1999). Przworski et al (2000) accept these conclusions and examine whether democracies are more likely to emerge as countries develop under dictatorships or having emerged for reasons other than economic development are only more likely to survive in countries that are already developed. They conclude that democracy is only likely to emerge/ consolidate at high levels of development. Rodrik (1999a) in his analysis of conflict and institutions is actually

unearthing the result that countries at high levels of development have lower levels of conflict.

There is no reason to suppose democracy will lead to greater protection of property rights. Property rights can be threatened by private actors, landless peasants and organised labour in particular. Democracy equalises the right to influence the allocation of resources so may exacerbate the threat to property from the poor. The contrary assumption is so widespread that economists regularly use dictatorship as a proxy for weak property rights. Przworski et al (2000:211) find to the contrary that average tax rates are no higher in dictatorships, and dictatorships are in fact less likely to nationalise private firms.

6.6 Other institutions

There are other institutions that may reduce the impact of conflict on economic growth, those analysed here are i) a repressive state, ii) inclusive institutions, and, iii) ideological institutions.

6.6.1. A Repressive State

In his characterisation of the developmental state Leftwich (1995, 2000) argued institutions may allow the state to implement growth promoting and distributionally non-neutral policies. Among his seven components of a developmental state Leftwich listed 'relative state autonomy', 'bureaucratic power' and 'a weak or flattened civil society'. These three components focus on the ability of the state to exclude or crush groups that do not benefit from or would oppose growth and industrialisation. Authors have discussed this idea in a variety of contexts, of India Bardhan said "In the context of economic growth it is rather the capacity of the system to insulate economic management from political processes of distributive demands, rent-seeking and patronage

disbursement that makes the crucial difference." (1984:72). Khan (2000d) notes that the models of development followed by South Korea and Pakistan in the 1960s were similar. Both relied on allocating the economic surplus to a small group of large-scale capitalists. South Korea succeeded in ensuring a high rate of re-investment and excluding other groups. In Pakistan a relatively more numerous and politicised intermediate class succeeded in forcing the government to divert an increasing share of the economic surplus to unproductive politically motivated rents. Kohli (1994) argued the impact of Japanese colonialism in South Korea was to transform the Korean state from a relatively corrupt and ineffective social institution into a highly authoritarian, penetrating organisation capable of both transforming and controlling Korean society. The colonial state established new production alliances with dominant classes and brutally suppressed and systematically controlled the lower classes. The colonial state broke the hold of the landowning classes, pensioned off the old rural elite and replaced them with Japanese career civil servants.

6.6.2. Inclusive institutions

A more inclusive institution building strategy is possible. An important part of securing legitimacy for a given (re)allocation of rights may be in compensating the (potential) losers rather than repressing them. Acemoglu and Robinson (1999) argue the House of Lords in Britain gave the landed classes a guaranteed stake in political power during the 19th Century which served to compensate them as their relative economic power declined with the onset of industrialisation. Without such compensation in Austria-Hungary and Russia landed groups opposed industrialisation for longer. Jomo and Gomez (2000) argue the New Economic Policy instituted in Malaysia after the 1969 ethnic riots managed to ensure a stable redistribution of rents from the ethnic Chinese to the indigenous Bumiputra. As well as raising the share of the latter in total corporate capital it has reduced contestation costs and allowed the more successful ethnic Chinese to accumulate.

Identifying those requiring compensation, minimising the transaction costs associated with such transfers, and minimising rent-seeking by other entities requires a state that is not 'autonomous' but "embedded in a concrete set of social ties that binds the state to society and provides institutionalised channels for the continual negotiation and re-negotiation of goals and policies." (Evans 1995:12). A state that is only autonomous lacks the intelligence and ability to rely on private decentralised implementation and is incapable of resolving collective action problems. Where this thesis departs from Evans (1995) is that he argued the concept of embedded autonomy implies dense links with industrial capital and an exclusionary arrangement with other groups. This is insufficient, there are many other potentially powerful groups in society whose opposition may at least have to be neutralised to permit a policy of sustained industrialisation. A dominant political party may provide just such an inclusive and embedded institution.

It is a characteristic of many developmental states that they have a single dominant political party. This may occur in the context of democracy such as the Botswana Democratic Party or Liberal Democratic Party in Japan or authoritarianism such as the Kuomintang in Taiwan. The Congress party in India between independence and the mid-1960s provided an embedded institution that was able to dominate civil society, provide compensation and ideological incorporation.

The system of one-party dominance is different from a one party system[38]. The model consists of a party of consensus and parties of pressure, the latter function on the margin. Those groups outside, various pressure groups and dissidents from the ruling party do not constitute alternatives to the ruling party, their functional role is to pressurise, criticise, and influence. This structure provides an in-built corrective, through factionalism within the ruling party and a latent threat from outside. These are necessary parts of the one-party dominant system and prevent the ruling elites from ossifying. The chief mechanism of the Indian system was the elaborate system of factions at every level of political and governmental activity through which Congress functioned (Menon 2003:24, 48). The party provided a system of co-ordination between the various levels through vertical

[38] The argument here is based on Kothari (1964).

faction chains. Congress "provided a subtle and resilient mechanism for conflict management and transactional negotiations among the proprietary classes" (Bardhan 1984/1998:77). It provided a well-defined network for the distribution of the spoils of office, institutionalised procedures of transaction and absorbed dissent by co-opting leaders of subordinate classes. In power Congress monopolised patronage resources right down to the village Panchayats, sugar co-operatives, banking corporations, and state allocated resources such as licenses, fertilisers, seeds and road construction. This made opposition profoundly difficult. Successful leaders were those skilful in rewarding diverse factions and communities (Weiner 1971). The central leadership provided a system of mediation, arbitration and inter-level co-ordination in the party. The plurality within the dominant party made it more flexible and representative and the party was prepared to absorb groups from without. The consensus of Congress stemmed both from its historical legacy as the party of independence and through the continuing accommodation of interests. Congress acted to neutralise some the more important cleavages within society, incorporating the labour movement and the linguistic re-organisation of states. Indian society is fragmented into many different religious, language, caste, class and ethnic groups. Until the mid-1960s these did not provide the cleavages around which political organisations developed. Congress was an inclusive party with a social base of support in some parts of India completely different with its social foundations in other parts (Chhibber and Petrocik 2002). The Congress acted to incorporate such differences within the party, functioning as a collection of state level political parties incorporating local influences (Chapter V).

6.6.3. Ideological

Woo-Cumings (1999) argues the authoritarian states of East Asia did not obtain their legitimacy through a mandate from civil society, or by following rules to gain office, rather by the project they were carrying out. Legitimacy was obtained by successfully achieving rapid economic development in an uncertain and dangerous Cold-war world. A political party that can subordinate its members individual aspirations to a collective

ideology, and exclude opponents can be an important institution to reduce conflict and facilitate economic reform. Kohli (1987) argues that tightly organised ideological parties were better able to penetrate rural society in India without being co-opted by propertied groups and implement modest reforms. Again for the case of India Harriss (2000) argues that a regime with a coherent leadership, an ideological and organisational commitment to exclude propertied interests, and an organisation that is both centralised and decentralised (embedded-autonomy) will allow institutional penetration while facilitating a degree of regime autonomy from the propertied classes.

The BJP is clearly a different political construct from the 1950s vintage Congress[39]. Whereas the earlier Congress built its support through vertical mobilisation, obtaining the support of local notables heading vote banks, the BJP mobilised on the basis of a strong organisation. The BJP is a cadre based, ideological political party relying on a network of activists owing allegiance to the BJP and the wider Hindu nationalist organisation (the Sangh Parivar). Activists are used to majoritarian discipline and factionalisation has been relatively less of an issue for the BJP. The BJP has functioned (since its formation in 1980) as a highly successful, disciplined political party, characterised by mass membership, high levels of ideological commitment, and a tightly knit party structure that has endured without splits since its formation (Basu 2001). The BJP provided a clear ideological message to which people could owe allegiance and subordinate their particularist interests. The BJP has an organic view of society, that all castes are harmonious components of society. They emphasised integrating the low castes through fear of the 'Muslim other', efforts to provide welfare and an intense effort to propagate particular ideological moral and cultural ideals (Sanskritisation)[40].

West Bengal provides a good case study of a political-economic environment before and after the impact of an ideological party. West Bengal between 1967 and 1977 was characterised by political chaos. The Left United Front (UF) government in 1967

[39] There are signs the difference was narrowing by the late 1990s. The BJP gradually shifted its electoral strategy from mobilisation to alliances and electoral adjustments, increasing the influence of accommodation at the expense of ideology (Hansen and Jaffrelot 1998).
[40] Through for example screenings of the Mahabaratha and Ramayana.

sponsored a land grab movement; this was taken to further extremes by the revolutionary violence of the Naxalbari movement. The central government responded by dismissing the state government and between 1971 and 1977 and a more compliant Congress party in (local) power cracked down. There were large numbers of politically motivated 'encounter killings' by the police and widespread arrests of UF members. The Communist Party (the largest constituent of the UF government) reformed itself, stressing a commitment to democracy, making itself more social democratic and less communist, whilst retaining the democratic centralism of internal party organisation. It was an ideological party, with that ideology imposed on disciplined cadres. This removed the worst elements of factional conflict and made the party subservient to larger organisational goals, enabling the party once returned to power (1977) to implement modest but genuine redistributive goals. Government was decentralised and competitive elections held for the village Panchayats. Many central government programmes (Food for Work, Employment Guarantee) were better implemented in West Bengal (Swaminathan 1990). Operation Bagra in the early 1980s provided tenurial rights and improved incomes for 25% of rural households (Kohli 1990:Ch10). This ideological party provided for a cohesive and effective government that has remained in power from 1977 to 2004.

Chapter V: The Role of the State and the Episode of Growth in India, 1951/52 to 1964/65.

1. Summary of Chapter Findings

The chapter is divided into three parts, each focusing on one particular role that the state has in promoting economic development. These relate to finance, production and institutions. The underlying hypothesis is that the state needs to be successful in all three to initiate and sustain an episode of growth. The first two examine the potential *economic* roles of the state, and the third the potential *political* role of the state.

The first economic role of the state is the mobilisation and allocation of the surplus. The Indian state had two principal roles related to finance that initiated the episode of growth after 1951/52. This chapter will demonstrate that the state was very successful in *mobilising* resources, both on its own account through tax revenue, and indirectly through private sector savings. Revenue from the tax system, public sector and household savings and savings inflow from abroad all increased sharply between 1951/52 and 1964/65. Patterns of resource mobilisation changed over time but there was a consistently important role for the state. The second important financial role of the state was in *allocating* resources to projects essential for development. The state was largely successful in achieving this between 1951/51 and 1964/65. The state managed to control current expenditure while sharply increasing public investment.

The second economic role of the state is in achieving a productive use of the surplus in both the public and private sectors. This section outlines the principal sources of economic growth between 1951/52 and 1964/65. These are higher aggregate investment, creating a guaranteed market via import controls, a self-sustaining momentum of growth in the public sector and a structure of regulation and high levels of public investment that generated profitable investment opportunities for the private sector. The attention of the

state to international relations enabled the momentum of growth to avoid two potential constraints emanating from agriculture and imports.

This section continues by evaluating growth over this period. The orthodox view of the planning period is negative. By analysing separately the periods 1951/52 to 1964/65 and 1964/65 to 1979/80 this thesis reveals a very different picture. There are signs of productivity growth in the Indian industrial sector before the mid-1960s hidden by the use of long-run (1950-1980) averages. There was a sharp decline in productivity (TFP) growth only after the mid-1960s. There are three crucial proximate reasons why productivity growth was relatively rapid between 1950/51 and 1964/65. These were, diversification into high(er) productivity industries, a pattern of balanced growth and an efficient process of extensive growth.

This final section will show how institutions enabled the state to overcome the conflict inherent in mobilising resources and then using them to promote productive investment. This section will show that the principle reason the Indian state was able to overcome the inevitable conflicts associated with (rapid) industrialisation was an inclusive institution – the Congress party. The Congress was able to identify those losers requiring compensation and minimise the transaction costs associated with such transfers through an elaborate structure of patronage. By monopolising patronage resources the Congress was able to accommodate new leaders and groups and make it rational for groups and patrons to remain within the party even if they were not gaining benefits in the short-term. The exit option deprived them of any future prospect of benefits. With Congress as the 'only-game-in-town' patrons acquiesced in the Congress programme (higher resource mobilisation and productive public investment) in the hope of future rewards. Industrial policy could focus on economic planning rather than containing conflict. The Congress system allowed groups losing out from the pattern of economic development to be incorporated and compensated at minimal cost. A good example is the demobilisation of a militant labour movement in the late 1940s. Into the 1950s and early 1960s labour was not benefiting from the development strategy. Labour was incorporated into the Congress system and strike activity quickly dropped down to pre-war levels and radical

labour ceased to be a threat. The Congress system allowed groups isolated from the development process to be incorporated (the language movement is discussed here) and their opposition to be quickly diffused. Groups fundamentally opposed to the geographical integrity of India or its basic political settlement were more easily identified and repressed. Finally there is some argument to show that even some elite groups excluded from the immediate benefits of development acquiesced in their own exclusion from an ideological motivation.

2. The (Economic) Role of the State, 1951/52 to 1964/65: Finance

This section examines the role of the state in mobilising and allocating the surplus. The state had three principal roles related to finance that initiated the episode of growth after 1951/52. These were to mobilise domestic and foreign savings, to create institutions to mobilise private sector savings and to allocate resources to projects essential for development.

This section will show that the state was very successful in mobilising resources. The mechanism by which the state mobilised the surplus showed distinct changes over time. In particular tax revenue nearly doubled between 1951/52 and 1964/65. In the early 1950s there was a sharp rise in savings by households, after 1956/57 there a rise in net inflow of savings from abroad, finally in the early 1960s public sector savings grew rapidly. Private corporate sector savings increased steadily throughout the whole period.

2.1. The Role of the State and the Mobilisation of Domestic and Foreign Savings

Tables 5.1 and 5.2 show that estimates of the marginal rate of gross savings consistently exceeded the rate of gross savings after 1951. This led to sharp increases in the average rate of gross savings, from 9.5% in 1951/51 to 14.6% in 1964/65.

Table 5.1: Estimates of the Marginal Rate of Saving in the Indian Economy, 1950-85

Period	Marginal Rate of Gross Saving (%)
1950/51 to 1960/61	20.0
1961/62 to 1969/70	18.2

Source: (Chakravarty 1987:103)

Table 5.2: Rate of Gross Saving in the Indian Economy, 1951-1965 (% of GDP at market prices, three year moving averages)

Year	Rate of Gross Domestic Saving
1951/52	9.5
1952/53	9.0
1953/54	9.3
1954/55	11.2
1955/56	12.8
1956/57	12.9
1957/58	11.8
1958/59	11.5
1959/60	12.3
1960/61	13.1
1961/62	13.8
1962/63	14.0
1963/64	14.2
1964/65	14.6

Source: (Bardhan 1984/1998:97).

The state boosted total savings, firstly by raising resources through the tax system and generating higher public sector savings, secondly by mobilising private sector savings (section 3). The state more than doubled the share of national income raised in taxation from 7% at the beginning of the 1950s to nearly 15% by the mid-1960s (table 5.3).

Table 5.3: Government Tax Revenue, 1950/51-1968/69

Year	Tax Revenue as a % of NNP
1950/51	6.92
1951/52	7.76
1952/53	7.22
1953/54	7.00
1954/55	7.91
1955/56	8.15
1956/57	8.30
1957/58	9.76
1958/59	9.15
1959/60	9.63
1960/61	10.98
1961/62	11.79
1962/63	13.33

1963/64	14.16
1964/65	13.42
1965/66	14.78
1966/67	14.33
1967/68	12.82
1968/69	13.51

Source: (Bhagwati and Srinivasan 1975:8).

The state was successful in achieving its aspirations outlined in the First Five-Year Plan in 1951. "the State must itself raise.....through taxation, through loans and through surpluses earned on state enterprises a considerable proportion of the savings needed.....public savings, as distinguished from private savings, personal or corporate, must be developed steadily." (Planning Commission 2003, First FYP, 1951, Ch2:8).

Greater tax revenue is not sufficient to increase domestic savings, it could be dissipated through higher levels of current expenditure. Table 5.4 shows that the rate of savings in the Indian public sector increased after 1951/52, especially so after 1958/59.

Table 5.4: Gross Savings in the Public Sector (three-year moving average) as % of GDP at current market prices.

Year	Gross Savings in the Public Sector
1951/52	1.9
1952/53	1.7
1953/54	1.4
1954/55	1.5
1955/56	1.8
1956/57	1.9
1957/58	1.9
1958/59	1.8
1959/60	2.1
1960/61	2.5
1961/62	3.1
1962/63	3.3
1963/64	3.5
1964/65	3.5

Source: (Bardhan 1984/1998:99).

Subsidies to agriculture through government irrigation systems declined between 1950/51 and 1960/61 (table 5.5). Keeping such expenditures in check was a necessary but not sufficient condition to increase investible resources.

Table 5.5: Budgetary Losses on Account of Operation of Government Irrigation Systems

Year	Operating Loss Rs m at 1970/71 prices	Area Irrigated by Canals (m ha.)	Net Sown Area (m ha.)	Implicit Subsidy per ha. of canal irrigated area	Implicit Subsidy per ha. of net sown area
1950/51	365.6	8.30	118.75	44.0	3.08
1960/61	355.9	10.37	133.20	34.3	2.67
1970/71	1,370.2	12.84	140.78	106.7	9.73

Source: (Chakravarty 1987:127).

An important source of savings in the mid-1950s was the net inflow of resources from abroad. The net inflow of savings from abroad increased sharply from 0.2% of GDP in 1954/55 to 3.2% of GDP in 1957/58 (table 5.6).

Table 5.6: The Net Inflow of Savings from Abroad (% GDP).

Year	%
1951/52	0.4
1952/53	0.5
1953/54	-0.1
1954/55	0.2
1955/56	1.2
1956/57	2.4
1957/58	3.2
1958/59	2.8
1959/60	2.6
1960/61	2.4
1961/62	2.7
1962/63	2.3
1963/64	2.5
1964/65	2.4

Source: (Bardhan 1984/1998:99).

The state had an important role in facilitating this inflow. The formation of the Non-aligned Movement at the Bandung Conference in 1954 placed India in a very fortuitous geo-political situation and India was thereafter able to procure aid from a wide range of countries (table 5.7).

Table 5.7: Sources of External Assistance (RsM)

Loans (repayable in foreign currencies)	Aid Authorised up to end of 1st Plan	Aid Authorised up to end of 2nd Plan	Aid Authorised up to end of 3rd Plan
International Institutions	572	2,612	4,231
US	903	1,085	7,917
UK	-	1,226	2,420
W.Germany	-	1,342	3,081
France	-	-	571
Italy	-	-	813
Japan	-	268	1,381
USSR	648	3,190	1,005
Czechoslovakia	-	231	400
Poland	-	143	270
Switzerland	-	65	180

Source: (Streeten and Hill 1968:328).

The Russians, British, and Germans all constructed steel mills in the 1950s. Among the western democracies India was perceived as the democratic alternative to totalitarian China. Institutions such as the Centre for International Studies and the Ford Foundation supported India with funding and relevant research. At times of crisis the Indian government did draw on this goodwill. Poor harvests after 1955 culminated in a monsoon failure in north India in 1957, and a sharp fall in foodgrain production between 1956/57 and 1957/58. In August 1956 the Indian government signed a PL-480 agreement with the US government. Foodgrain imports in 1957 were released through non-profit fair-price shops. By the mid-1950s the large sterling reserves accumulated in the 1940s had been largely drawn down and the need for capital goods imports was higher than

expected leading to a foreign exchange crunch. A sharp increase in concessional capital inflows allowed the government to preserve the investment plans of the Second Five-Year Plan (1956-61) intact.

2.2. The Role of the State in Creating Institutions to Mobilise Private Sector Savings

As well as mobilising its own resources through the tax system and facilitating the inflow of resources from foreign sources the state played an important role in mobilising resources indirectly, by creating institutions to mobilise private sector savings.

80% of total savings in India since Independence have originated from the household sector. Kok-Fay and Jomo (2000) argue that risk-averse households are more likely to increase financial savings in response to deposit security and intermediation efficiency than to interest rates. Household savings depend crucially on the availability of an efficient infrastructure for deposit collection, in particular on the extent of the bank branching network. After Independence the state increased its control over the private banking sector. The Banking Companies Act of 1949 empowered the RBI to control the opening of new banks and bank branches, inspect the accounts of a banking company and prevent the winding up of a licensed bank. The act was amended on several occasions in the 1950s in each case to provide greater control over bank liquidation. There was a sharp decline in banking failures after 1951. After 1960 new sections were added to enable the RBI to compulsorily merge weak banks with strong ones. The number of banks fell from 566 in 1951 to 85 in 1969 (Sen and Vaidya 1997). In 1962 a national deposit insurance scheme was launched. After its formation in 1955 the State Bank of India made a conscious effort to spread branches into rural areas. The Life Insurance Corporation of India was established in 1956 by nationalising all life insurance firms then operating.

Gross savings originating in the private household sector showed a sharp increase from 6.6% of GDP in 1951/52 to 9.9% of GDP in 1956/57. Gross savings from the private

corporate sector increased from 0.9% of GDP in 1951/52 to around 2% of GDP in the early 1960s (table 5.8).

Table 5.8: Gross Savings of the Private Corporate Sector and Household Sectors (three year moving average) as % of GDP at current market prices

Year	Gross Saving in the Private Corporate Sector	Gross Savings in the Household Sector
1951/52	0.9	6.6
1952/53	0.9	6.4
1953/54	0.9	7.0
1954/55	1.1	8.6
1955/56	1.2	9.8
1956/57	1.2	9.9
1957/58	1.1	8.8
1958/59	1.1	8.6
1959/60	1.4	8.8
1960/61	1.7	8.9
1961/62	2.0	8.7
1962/63	2.0	8.7
1963/64	1.9	8.8
1964/65	1.8	9.3

Source: (Bardhan 1984/1998:99).

The finance ratio is the ratio of total financial claims issued during the course of a year to national income, and can be used as an indicator of the rate of financial development. Such institution building efforts by the state led to an increase in the finance ratio from 0.75 in 1951/52 to 9.45 in 1960/61 (Sen and Vaidya 1997:26).

2.3. Allocating resources to projects essential for development

The second important financial role of the state was in allocating resources to projects essential for development. This section will demonstrate that the state was largely successful in achieving this. By mobilising revenue and controlling current expenditure the state created fiscal space to sharply increase public investment between 1951/52 and

1964/65.

There was a perception among policymakers in India in the late-1940s that industrialisation was essential, for political as much as economic reasons. Nehru considered there was a need for industrialisation and to that end, "three fundamental requirements.....heavy engineering and machine making industry, scientific research institutes and electric power" (Nehru 1946:410). Indian planning reflected deeper concerns, political independence was considered impossible, "within the framework of international interdependency" (Nehru 1946:407), unless India were highly industrialised. Reflecting early thinking on dependency, "the attainment of national freedom and the elimination of foreign control became an essential pre-requisite for planning" (Nehru 1946:395), and "....during the late 1950's, we thought of anyone advocating a higher share of agriculture as more or less right wing, an agent of the US..." (Desai 1998:46). These aspirations were closely reflected in planning documents of the period.

"The public sector has to expand rapidly. It has not only to initiate developments which the private sector is either unwilling or unable to undertake; it has to play the dominant role in shaping the entire pattern of investments in the economy, whether it makes the investments directly or whether these are made by the private sector. The private sector has to play its part within the framework of the comprehensive plan." (Planning Commission 2003, Second FYP, 1956, Ch2:1).

These aspirations were largely achieved in practise. The Indian state between 1951/52 and 1964/65 sharply increased allocations from its own budget towards those projects essential for economic development.

2.3.1. Own Investment by the State

Between 1951/52 and 1964/65 the rise in total investment was entirely driven by the public sector. Total level of investment increased (with fluctuations) from a range of 10-12% of GDP between 1951/52 and 1953/54 to 16.8% in 1964/65. This rise is matched almost exactly by the increase in public sector investment, from 3.3% in 1951/52 to 8.3% in 1964/65, a rise of 5% of GDP (table 5.9).

Table 5.9: Investment Ratios (Three Year Moving Averages) % of GDP (1970/81 market prices)

Year	Gross Fixed Capital Formation	Gross Fixed Capital Formation in the public sector
1951/52	12.2	3.3
1952/53	11.1	3.5
1953/54	10.5	3.7
1954/55	11.2	4.4
1955/56	12.8	5.0
1956/57	14.7	5.8
1957/58	14.7	5.7
1958/59	14.2	6.0
1959/60	13.5	6.2
1960/61	14.0	6.6
1961/62	14.5	7.0
1962/63	15.1	7.3
1963/94	15.8	7.8
1964/65	16.8	8.3

Source: (Bardhan 1984/1998:97)

The share of the state in total investment rose from around 25% in 1951/52 to 50% in 1964/65 (table 5.9). The central importance assigned to the public sector was first articulated in the Industrial Policy Resolution (1956) and incorporated into the 2nd FYP (1956-61). The public sector for both ideological and practical reasons was given the task of strategically controlling the commanding heights of the economy. This formed the basis of 'reservation' in sectors such as iron and steel, heavy plant and machinery

manufacture, mining, coal, transport and power[41]. Infrastructure became a near monopoly for the public sector.

"In the generation and distribution of electric power, the public sector has now the principal share and is being rapidly enlarged. Its share in transport has also steadily increased. In large industries and minerals the total investment in the public sector during the Third Plan will be distinctly higher than in the private sector. As compared to 1950/51, by the end of the Third Plan, the contribution of the public sector will increase from less than 2 per cent to nearly a fourth in organised manufacturing industries and from less than a tenth to over a third in mineral production.....As the relative share of the public sector increases, its role in economic growth will become even more strategic and the State will be in a still stronger position to determine the character and the functioning of the economy." (Planning Commission 2003, Third FYP, 1961, Ch:6).

The state was successfully able to control its own pattern of expenditure. A rising share of total state expenditure was accounted for by investment. The percentage more than doubled from 25.56% in 1950/51 to a peak of 54.64% in 1958/59, then stabilised at a level around 47/48% until 1964/65 (table 5.10).

Table 5.10: Central Government Capital Expenditure as a Percentage of Total Expenditure (in Current Prices)

Year	%
1950-51	25.56
1951-52	33.39
1952-53	31.45
1953-54	37.23
1954-55	52.98
1955-56	46.62
1956-57	48.77
1957-58	51.77
1958-59	54.64
1959-60	46.75
1960-61	47.73

[41] Existing private sector companies in these areas were permitted to operate and their expansion permitted.

1961-62	47.18
1962-63	46.46
1963-64	47.54
1964-65	48.23

Source: (Rudolph and Rudolph 1987:231)

3. The (Economic) Role of the State, 1951/52 to 1964/65: Production

This section examines the role of the state in achieving a productive use of the surplus in both the public and private sectors. This section outlines the principal sources of economic growth over the 1951/52 to 1964/65 period. These were increased aggregate investment, a guaranteed market via import controls, a self-sustaining momentum of growth in the public sector and a structure of regulation and high levels of public investment that generated profitable investment opportunities for the private sector. The attention of the state to international relations enabled the momentum of growth to avoid two potential constraints emanating from agriculture and imports.

This section continues by evaluating growth over this period, the orthodox view is negative. By analysing separately the periods 1951/52 to 1964/65 and 1964/65 to 1979/80 this thesis reveals a different picture. There are signs of productivity growth in the Indian industrial sector before the mid-1960s. This positive outcome is hidden by the use long-run (1950-1980) averages. There was a sharp decline in productivity (TFP) growth *after* the mid-1960s. There are three crucial proximate reasons why productivity growth was relatively rapid between 1950/51 and 1964/65. These are firstly, diversification into high(er) productivity industries, secondly, a pattern of balanced growth and thirdly, an efficient process of extensive growth.

3.1. Sources of Growth: Investment

The most important source of growth from both supply and demand sides was increased investment. Aggregate investment increased from 10.5% of GDP in 1953/54 to 16.8% of

GDP in 1964/65. This was led by increased public investment, which increased from 3.7% of GDP to 8.3% of GDP over the same period (table 5.9). This expansion of investment laid capacity in sectors crucial for industrial growth - the generation and distribution of electric power, iron and steel, mining, coal, transport and machinery. The expansionary momentum generated by rapid growth of investment was important from the demand side. A careful reading of the evidence suggests that changes in demand had a crucial impact on TFP (Ahluwalia 1985; Goldar 1986)[42]. Growth rates of TFP show two distinct structural breaks, in 1965-7 and 1980/1. Only the latter has been properly identified and analysed. Ahluwalia (1991) finds the upturn in TFP during the 1980's to be coincident with rapid demand expansion. Mohan-Rao (1996b:3188) finds a positive correlation between output growth and TFP in Indian manufacturing. Ahluwalia and Williamson (2003:67) find a systematic relation between higher growth rates of GDP and those of TFP.

3.2. Sources of Growth: Replacing Imports

Increased trade protection after 1950/51 guaranteed the domestic market for the output of private industry and thereby created a derived demand for inputs and infrastructure generated by public sector investment. Nearly a quarter of industrial growth between 1950/51 and 1965/66 came through import substitution (Chandrasekhar 1988). Import substitution was highest in consumer goods (such as cotton, textiles, and sugar) until 1957, then with the launch of the 2nd FYP (1956-61) shifted to intermediate and investment goods (such as steel, cement and capital goods) (Bhagwati and Desai 1970; Bagchi 1977). Despite the unexpectedly large requirements for imports (capital goods, raw materials) that occurred during the industrialisation programme India did manage to reduce its dependence on imports. There was a declining trend in trade ratios during this period (table 5.11).

[42] Verdoorn's law suggests there is a positive relationship between TFP and output growth.

Table 5.11: Ratio of Merchandise to Non-residential GDP at Current Prices

Period	Imports as % of GDP	Exports as % of GDP	Average trade to GDP Ratio
1950/51 to 1960/61	7.82	5.84	6.83
1960/61 to 1970/71	6.27	4.03	5.15

Source: (Sivasubramonian 2004:261)

3.3. Sources of Growth: Heavy Industry Creates its Own Demand

The mid-1950s witnessed an abrupt shift in the allocation of state (and hence aggregate) investment towards heavy industry. Plan sector expenditure on industry and metals jumped from Rs 97 crore (4.9% of total expenditure) during the 1st FYP to Rs 900 crore (24.1% of total plan expenditure) during the 2nd FYP (table 5.12). This expenditure was targeted to iron and steel, coal, fertilisers, heavy engineering and heavy electrical equipment.

Table 5.12: Pattern of Planned Public Sector Outlay in the First Three Five-Year Plans (Rs. crores, Actual Expenditure)

	Agriculture and Allied Activities	Irrigation and Flood Control	Power	Industry and Metals	Transport and Communications	Social and Community Services	Total
First FYP, 1951-56	290 (14.8)	432 (22)	151 (7.7)	97 (4.9)	518 (26.4)	472 (24.1)	960 (100)
Second FYP, 1956-61	549 (11.8)	436 (9.3)	446 (9.5)	1,125 (24.1)	1,261 (27.0)	855 (18.3)	4,672 (100)
Third FYP, 1961-6	1,089 (12.7)	665 (7.8)	1,252 (14.6)	1,967 (22.9)	2,112 (24.6)	1,492 (17.4)	8,577 (100)

Source: (Chakravarty 1987:108).

Higher public investment generated a self-sustaining momentum of growth in the public sector. Once production facilities were established the wage costs in state industrial enterprises were a fixed not a variable cost of production. This implied that an increase in the demand for fixed capital goods (investment) met from domestic resources (government or private investment) raised public savings by an almost equal amount. The value of the investment multiplier was close to one. The growth of heavy industry was certainly rapid but was largely disassociated from the rest of the economy. In accordance with the thesis of primacy to heavy industry machines were certainly being used to make machines in India, but then those machines, simply made still more machines. There was a rapid increase in the growth of iron and steel, all types of machinery and chemicals, and minimal increase in the output of textiles (table 5.15). In this it bore some striking similarities to the heavy industrialisation drives in the socialist economies.

"A concentric, self-repeating, self-inducing process occurs: the production of investment goods is raised so as to have more fixed capital, which largely produce investment goods that contribute in turn to the growth of fixed capital.....There is.....an internal spiral (or propeller), because the spiral motion advances, resulting in ever more investment, ever more fixed capital, and ultimately, ever more aggregate output." (Kornai 1992:171).

3.4. The Industrial Licensing Framework and the Private Sector

After 1951 and particularly with the launch of the Second FYP in 1956 the state sought to develop a pre-planned industrial structure. Plan priorities included targets for private investment, these were translated into a structure of regulation that did have a profound influence on investment decisions by the private sector. The policy framework included the Industrial Development and Regulation (IDR) Act (1951). The Act stipulated that a license would be required for establishing a new industrial unit, increasing production capacity, and changing the location of an existing unit[43]. The policy framework also

[43] Small-scale industries (defined in terms of assets) and cottage industries were exempt.

included a protective foreign trade regime (import licensing and tariffs) and the regulation of imports of foreign technology and capital. To this were added price and distribution controls in specific industries. The IDR aimed to channel industrial investment into socially desired directions. Despite problems with administration and a lack of flexibility in implementation it was a success in encouraging a change in India's industrial structure in accordance with the desired pattern enunciated in the Mahalanobis model.

It was not simply a question of corralling an unwilling private sector through regulation into making a particular pattern of investment. Public investment was focused in basic, long gestation, high-risk sectors and in infrastructure. In the language of Hirschman (1958) such investment created forward linkages that generated profitable investment opportunities for the private sector. The five-year plans demonstrated the government were committed to higher growth and assured potential investors that demand would grow at this higher rate. Bhagwati characterises the problem as a case of multiple equilibria, "for countries stuck in a Nash equilibrium with low levels of investment, there existed a superior co-operative equilibrium with higher levels of investment and growth." (1998:27). Infrastructure investment, "made the government's commitment to kicking the system up into some bastardised version of the Rosenstein-Rodan-Vishny-Shleifer equilibrium quite credible to the private sector, triggering the self-fulfilling private sector investment response that lifted the economy into higher investment and growth rates." (Bhagwati 1998:28).

There is good evidence that the private sector responded to the creation of forward linkages by increasing directly productive investment. De Long and Summers (1991) find that the accumulation of machinery is a prime determinant of national rates of productivity growth. They find a 'clear, strong and robust' relationship between national rates of machinery and equipment investment and productivity growth, and countries that invested heavily in equipment between 1960 and 1985. The results from De Long and Summers suggest that the private return to equipment investment is below the social return, and that the social return is very high (over thirty percent they estimate). There

was a very high level of investment in equipment in India between 1950/51 and 1964/65 (table 5.13).

Table 5.13: Growth Rates of Non-residential Net Fixed Capital Stock (1993/94 prices).

Period	Structures	Equipment	Total	Average Ratio GFCF/ GDP
1950/51 to 1964/65	6.55	5.54	6.26	16.38
1964/65 to 1980/81	6.04	-0.04	4.82	19.74

Source: (Sivasubramonian 2004:149).

The high level of equipment investment up until the mid-1960s was led by the private sector. The share of machinery investment by the private sector increased from 3.1% to 5.0% of GDP between 1960/61 and 1964/65. Over the same period investment in machinery by the public sector fluctuated in the range 2.5-3.0% of GDP. By contrast investment in inventories and construction (less directly productive) by the private sector declined sharply and rose in the public sector (Desai 1981:279).

3.5. The State and Potential Constraints on Growth

The most important potential constraints on state-led industrialisation between 1951/52 and 1964/65 were agriculture and imports. Both of these were successfully managed by the state.

The agricultural sector in these early years was the major economic sector accounting for over 70% of total employment. The traditional industries that dominated the Indian economy, such as cotton and jute textiles, sugar, vegetable oils and tobacco were agro-based. The poor performance of agriculture *can* set constraints on industrial growth, through for example, a wage-good constraint squeezing profit margins. In practise agriculture had a neutral impact on growth between 1950/51 and 1964/65. There was a

decline in the agricultural terms of trade in the 1950s indicating there was no pressure of excess demand pressures leading to a secular relative price increase (Desai 1981). End-point comparisons of three-year averages centred around a peak agricultural year show relatively rapid growth of agricultural production (3% p.a.) between 1952-5 and 1959-62 (Patnaik 1981). The marketed surplus in agriculture increased by 2.90% pa between 1951/52 and 1965/66, faster than agricultural production, which grew by 2.74% pa. This difference increased the proportion of marketed surplus, from 39% of output in 1951-2 to 44% in 1965-6 (Thamarajakshi 1969). The output of agriculture constituted the principal wage-good in 1950s India. If wage goods were becoming a binding constraint on industrial growth all industries should be affected, with the largest effect being on the most labour-intensive. Labour-intensive consumer non-durables however showed steady growth across 1951/52 to 1964/65 and 1965/66 to 1979/80. The scarcity of the wage good in a partial equilibrium context could raise the wage rate relative to the price of the manufactured product, reducing industrial profitability. Section 4 shows that what limited evidence does exist does not support this thesis.

Public investment was heavily biased against agro-based industry especially after 1956. This was compounded by a monsoon failure in north India in 1957 that led to a sharp fall in foodgrain production between 1956/57 and 1957/58. Donor sentiment at this time was still very favourable, in August 1956 the Indian government had signed a PL-480 agreement with the US government. Large food imports from the US augmented domestic supplies and held the price level. Food imports supplied an average 5-8% of domestic availability and even underpinned a terms-of-trade shift in favour of industry (Frankel 1978:Ch4).

The other potentially constraining side effect of state engineered industrialisation was the growing reliance on imports that undermined the balance of payments. Despite intentions to achieve self-sufficiency, dependence on imports of basic and intermediate goods increased over the 2nd FYP. The financial crisis of 1957/57 due to higher than expected imports of industrial goods and foodgrains led to more intensified rationing of foreign exchange. Massive donor support allowed the main features of the 2nd FYP to be

retained. Western democracies were very keen to see her succeed in the 'democracy vs. dictatorship' race with Maoist China.

3.6. An Evaluation of Growth and Efficiency 1950-1965

Bhagwati (1993) called the Mahalanobis strategy 'The Model That Couldn't', castigating it not for a failure to mobilise resources but for poor productivity. Between 1950 and 1984 he notes the savings rate approximately doubled from 10 to 22% of GDP with economic growth showing no equivalent increase. Desai (1981) argued that high rates of industrial investment in the 1960s and 70s and a low rate of industrial growth necessarily implied a low rate of productivity growth. Ahluwalia (1985) found a generalised decline in capital efficiency across all industry groups between 1959/60 and 1979/80. Ahluwalia (1991) went beyond capital-output ratios and estimated TFP growth. Growth between 1959/60 and 1985/86 she argues was associated with 8% p.a. growth of capital, moderate growth (3%p.a.) in employment and negligible growth of TFP (-0.4% p.a.). Contrary views have generally accepted the low-productivity thesis and made other arguments. Chakravarty argued efficiency was not a basis to dismiss planning "where major structural changes are involved and where the 'invisible hand' can only be grasped through very dark glasses" (1987:5). Raj (1984) suggested that rising ICOR's might be not due to inefficiency but to technological factors such as a more capital-intensive post green-revolution agriculture. This orthodox view is that there was a failure of efficiency/ productivity. This view is based on long-run data for the entire period from the early 1950s to the 1980s.

By looking at episodes of growth and stagnation, in particular separating the period's 1951/52 to 1964/65 and 1964/65 to 1979/80 a very different picture emerges. There are signs of productivity growth in Indian industry before the mid-1960s. This positive outcome is hidden by the use of Ahluwlia and others of long-run (1950-1980) averages. There was a sharp decline in productivity growth *after* the mid-1960s. The slowdown in GDP growth was caused by a drop in the growth of output per unit of input (TFP

growth), from 1.78% p.a. to 0.41% p.a (table 5.14). The contribution of factor accumulation actually increased. Virmani (2004b:23) agrees with these figures and shows with various estimates that TFP growth collapsed from +1.4/6% between 1950/51 and 1964/65 to –0.1/+0.6% between 1965/66 and 1979/80.

Table 5.14: Factor Inputs and Productivity Growth in India, 1950/51 to 1980/81

Period	Total Factor Input	Output per unit of input	GDP
1950/51 to 1964/65	2.32	1.78	4.10
1964/65 to 1980/81	2.71	0.41	3.12

Source: (Sivasubramonian 2004:286).

Sustained economic growth in a nation's per capita income can only occur if there is a rise in output per unit of input. Increased inputs without an increase in the efficiency with which they are used must run into diminishing returns, input driven growth is inevitably limited (Krugman 1994). There are three crucial proximate reasons why productivity growth was relatively rapid between 1950/51 and 1964/65. These are firstly, diversification into high(er) productivity industries, secondly, a pattern of balanced growth and thirdly, an efficient pattern of extensive growth.

3.6.1 The Nature of Growth: Diversification

There was a substantial diversification in the structure of production towards potentially high(er) productivity technology and capital-intensive sectors during the 2nd FYP (1956-61). Table 5.15 shows the minimal increase in the output of a key consumption/ wage good cotton textiles and rapid growth of chemicals, iron and steel and especially of machinery.

Table 5.15: Index Number of Industrial Production (1950/51 = 100).

Group	1955/56	1960/61
General Index	139	194
Cotton Textiles	128	133
Iron and Steel	122	238
Machinery (All types)	192	503
Chemicals	179	288

Source: (Planning Commission 2003, Third FYP 1961 Ch3:p5).

Industrial production grew by an annual average of 9% between 1961 and 1965, the sharpest increase was in the capital goods sector which showed growth of nearly 20% p.a., in basic goods 10.5% p.a. and consumer goods a paltry 5% p.a. (Rangarajan 1982:292). Between 1960/61 and 1965/6, 29.93% of the growth of net value added in the registered manufacturing sector was contributed by intermediate goods and 25.63% by capital goods (Chaudhuri 2002). Consumer durables contributed only 4.77% of growth in net value added. There was an impressive growth in the range and sophistication of industrial output. Between 1956 and 1960 the weight of consumer goods in an index of industrial production dropped from 48.4% to 37.2%, basic goods increased from 22.3% to 25.1% and capital goods from 4.7% to 11.8% (Ahluwalia 1991:13). In terms of patterns of output growth the aims of the planning strategy were starkly effective.

3.6.2 The Nature of Growth: Balanced

Between the early-1950s and the mid-1960s the allocation of the surplus (income distribution) was consistent with the Mahalanobis strategy. Planned capacities and supplies of capital and consumer goods were approximately equal. The intentions of the government and (heavily regulated) private sectors balanced so the macroeconomy avoided either excess capacity or inflationary conditions, or a combination of both simultaneously in different sectors. The evolution of the production structure responded in accordance with planned rather than private intentions because the government successfully implemented licensing, fiscal policy and its own allocation of investment to regulate the flow of resources and demand in different sectors. In particular the

government managed to control the emerging pattern of income distribution. Increments in national income were largely diverted to the state or to savings and used to expand public investment rather than remaining in the private sector generating an 'unplanned' demand for consumption. Capacity utilisation rates remained high until after the mid-1960s (table 5.16). This illustrates that the pattern of resource allocation was efficient in terms of avoiding major bottlenecks or generating excess unused capacity. Complementary investment projects were successful in generating a pattern of balanced growth that avoided wasted capacity and inefficiencies in production.

Table 5.16: Capacity Utilisation Rates, 1960-65 to 1971-75 (%)

Industry Group	1960-5	1966-70	1971-5
Basic Goods	86.0	82.0	77.4
Capital Goods	85.9	66.4	60.2
Intermediate Goods	89.3	81.9	79.7
Consumer Goods	86.6	82.2	80.1

Source: (Ahluwalia 1985:109).

3.6.3. Extensive Growth in India, 1951/52 to 1964/65

Growth in India between the early-1950s and mid-1960s was extensive in nature, based on the horizontal replication of industry and production. In particular the gradual indigenisation of capital goods and components previously imported. There is evidence to show that the process of replication (hence extensive growth) was efficient.

Steel production was rapidly expanded by foreign aid projects in the 1950s. The Soviets set up a plant at Bhilai, the British at Durgapur and West Germans at Rourkela all with contemporary 1950s vintage technology. These plants were expanded at various intervals in the coming decades using the same technology. Expansion was extensive in nature

(D'Mello 1988). Hindustan Machine Tools (HMT) was initially developed through foreign collaboration; this initial agreement was terminated in 1956. A second factory was soon after opened in Bangalore without foreign assistance. Engineers, supervisors and operators moved from the 'mother factory' to set up new offshoots. There are some indications of learning, this second factory was operational in fourteen months, the first took over a decade. More factories were opened in the early 1960s, in Pinjore, Kalamassery and Hyderabad. Technology was initially purchased under license, the production of machine tools were then gradually indigenised by dismantling and elementising the entire machine and phasing out the import content. The indigenous content of milling machines increased from 35% in 1957/58 to 94% 1963/64, radial drills from 30% 1958/59 to 91% 1963/64, low priced lathes from 57% 1959/60 to 95% in 1963/64 and grinders from 43% in 1960/61 to 90% in 1963/64 (Mazcaranhas 1982). In 1966 HMT made a significant breakthrough and successfully competed for an order of 250 milling machines to the defence ministry. Growth was extensive in nature, acquiring a technology and expanding its use to increase output and indigenise the production process. A similar example is the motor vehicle industry, which expanded production significantly after being given tariff protection in 1953. The number of vehicles produced by the five main firms increased from 2700 in 1953 to 37,408 in 1965. All vehicle designs were borrowed from foreign collaborators. Indigenous design capabilities were limited mainly to a few two-wheeler vehicles. Over this entire period there were no technological innovations (Narayana et al 1992). Learning was limited to the indigenisation of component supply. Output growth was extensive in nature, through increasing production of vehicles of a given specification and design.

Extensive growth was efficient in the sense production was being efficiently replicated. There was little sign of any increase in the sectoral incremental capital-output ratios (ICOR's) in relevant economic sectors. The ICOR in the secondary sector remained unchanged from 2.1 between 1950/51 to 1955/56 and 1955/56 to 1960/61. The ICOR in the unregistered manufacturing sector changed only marginally from 6.1 between 1950/51 and 1955/56, to 7.5% between 1955/56 and 1960/61 and 5.6 between 1960/61

and 1965/66[44]. In the unregistered manufacturing sector these figures were 1.1, 1.9, and 2.7 respectively. Capital output ratios in the (government) engineering sector fell from 3.55 in 1960/61 to 3.29 in 1965/66, in the (government) chemicals sector from 7.66 to 3.00 over the same period (Desai 1981). Alongside rapid efforts to indigenise production of capital goods there are signs that imports were replaced by domestic production of a comparable nature. The relative price of capital goods remained stable between 1955 and 1965 despite a reduction from 20% to 10% in the share of capital goods in total imports. Continued import substitution after the mid-1960s was associated with a gradual rise in the relative price (Athukorala and Sen 2002:26-7)[45]. As they were constructed these early industrial units rapidly reached capacity levels of production, indicating that the technical engineering skills necessary to produce were quickly diffused. Production of steel ingots at Bhilai rose from 40.2% of (estimated) capacity in 1960/61 to 111.8% in 1964/65. In Durgapur these figures were 16.8% and 100.6% respectively. In the Hindustan Aluminuium Company (HALCOM) production of primary aluminium increased from 41.7% of capacity in 1962 to 126.2% in 1965.

4. The (Political) Role of the State, 1951/52 to 1964/65: Institutions

This section focuses on institutions that allow the state to overcome the inherent conflicts associated with (rapid) economic development. In particular this section can explain why a number of other works have trouble explaining the pattern of state intervention over this period. Bardhan (1984/1998) argued that the heterogeneous social structure of India meant that revenues would be diverted from productive investment to unproductive subsidies. In fact productive investment rose strongly between 1951 and 1965. Desai (1981) argued that the strongest political force in India was a 'vast army of the petty proletariat'. This he argues constrained the state to dissipate its surplus to promote and maintain employment in small and public enterprises and left the state unable to impose industrial discipline in a culture of low labour productivity. In fact this chapter has

[44] Chapter VI shows these dramatically increase after 1965.
[45] A key cost of import substitution argued Krueger (1998) is that domestically produced capital goods will

shown that the extensive growth that occurred between 1951 and 1965 was relatively efficient and that there were definite indications of productivity growth. Patnaik (1998) and Byres (1981) discuss the difficulty of mobilising resources. Patnaik of the general difficulty of taxing property owners, and Byres specifically of raising resources from the agricultural sector. By contrast this chapter has shown that the state was very successful in mobilising resources through savings and tax revenue. This section will show how institutions enabled the state to mobilise resources and use them to promote productive investment.

This section will show that the principle reason the Indian state was able to overcome the inevitable conflicts associated with (rapid) industrialisation was an inclusive institution – the Congress party. By monopolising patronage resources through electoral dominance the Congress was able to accommodate new leaders and groups. The monopoly of patronage resources made it rational for groups and patrons to remain within the party even if they were not gaining short-term benefits. The exit option deprived them of any future prospect of benefits. With Congress as the 'only-game-in-town' patrons acquiesced in the Congress programme in particular higher resource mobilisation and productive public investment in the hope of future rewards. Industrial policy could focus on economic planning rather than containing conflict. The possibility of monitoring and imposing discipline on the public sector and on capitalists by a strong state and planning commission was a real one. The state was also able to ensure high rates of productive private sector investment that were complementary to its overall industrial policy. The Congress system allowed groups losing out from the pattern of economic development to be incorporated and compensated at minimal cost. A good example is the demobilisation of a militant labour movement in the late 1940s. Into the 1950s and early 1960s labour was not benefiting from the development strategy. Labour was incorporated into the Congress system and strike activity quickly dropped down to pre-war levels. Radical labour ceased to be a threat even as the development strategy nibbled away at real incomes. The Congress system allowed groups isolated from the development process to be incorporated (the language movement is discussed here) and their opposition to be

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be more expensive than imported options.

quickly diffused. Groups fundamentally opposed to the geographical integrity of India or its basic political settlement were more easily identified and repressed. Finally there is some argument to show that even some elite groups excluded from the immediate benefits of development or suffering from rising levels of inequality acquiesced in their own exclusion from an ideological motivation.

4.1. Congress: An Inclusive Institution

The Congress system functioned as a mechanism to absorb those losing out (the labour movement) or to integrate those at risk of missing out (the linguistic movements of the 1950s and 1960s) from the process of development. This section concludes by noting that on occasion repression and also more generally a certain ideological unity (certainly among elites) in post independence India and a profound legitimacy of the newly installed Congress government allowed the state to rapidly mobilise tax revenue and savings.

Bardhan said "In the context of economic growth it is rather the capacity of the system to insulate economic management from political processes of distributive demands, rent-seeking and patronage disbursement that makes the crucial difference." (1984:72). His argument is too narrow, it is precisely the lack of insulation and detachment from society that permitted the state to initiate an episode of growth between 1951/52 and 1964/65. The rapid economic growth and structural changes that occurred after 1951 was made possible because the state could utilise patronage resources to incorporate interest groups. An important part of securing legitimacy for the (re)allocation of rights and income streams that resulted from rapid industrialisation was in compensating the losers. Identifying and incorporating those losers requiring compensation, minimising the transaction costs associated with such transfers, and minimising rent-seeking by other entities required a state that was more 'embedded' than 'autonomous'. The state has to be "embedded in a concrete set of social ties that binds the state to society and provides institutionalised channels for the continual negotiation and re-negotiation of goals and

policies." (Evans 1995:12). The experience of India between 1951/52 and 1964/65 illustrates that the position of Bardhan is wrong and Evans too narrow. Evans argues that the concept of embedded autonomy implies dense links not with society in general but specifically with industrial capital and an exclusionary arrangement with other groups. In India after 1951 there were many other powerful groups in society whose opposition at least had to be neutralised to permit a policy of sustained industrialisation. It was the Congress party between independence and the mid-1960s that constituted the required embedded institution that was variously able to incorporate civil society (not insulate the state) and provide compensation for those groups losing out.

Brown captures the role of the Congress in this period succinctly. "Congress also functioned as an integrating mechanism by virtue of its ideological openness, welcoming many shades of opinions within its ranks to the extent that it was not only the dominant party within the polity but almost within itself an ideological party system. The only groups excluded from Congress were those Nehru believed guilty of attitudes and actions which threatened to divide and destabilise the country, particularly communists and those who overtly defined India in Hindu terms, or those who excluded themselves, such as a small band of socialists.....Congress, by its social openness and flexibility at state level, put down roots in every part of India, welcoming into its ranks virtually all those with a stake in public life who saw it as a vehicle for influence and power. Its chameleon-like adaptability to local social configurations of power was reflected and confirmed by its choice of candidates to fight elections for particular seats, (Brown 2003:221). This summary based undoubtedly on earlier work by Weiner and Kothari needs unpacking.

Weiner (1967) in field work of local Congress organisations showed how the party had an adaptive quality and was able to build alliances using patronage networks anchored by local notables, panchayat leaders, and caste elites. Kothari (1964) analysed how the Congress as an institution was able to incorporate, co-opt and diffuse dissent. Kothari labelled the Congress-system a structure of one-party-dominance, distinguishing this from a one-party system. The model consists of a party of consensus and smaller external parties of pressure, the latter existing on the margins of the political system.

There were also various factions within the Congress party. Voice from outside and factionalism within provided an in-built corrective that prevented the ruling elite from stagnating. The elaborate network of factions through which Congress operated allowed for the efficient functioning of patronage and incorporation. By the time of Independence Congress had been a mass organisation for more than twenty years. Congress membership in Uttar Pradesh for example increased from 62,000 in 1936 to 1.45m in December 1938 (Menon 2003:244). Gandhian notions of the organic unity of Indian society and of class conciliation provided the ideology for inclusivity. The provincial party was organised into 21 units in conformity with major linguistic boundaries. There was a concerted effort to decentralise the party with branches in every district and tulaka (Menon 2003:63-76). This hierarchical structure allowed the party to develop a system of factions at every level of political and governmental activity. The party provided a system of co-ordination between these various levels through vertical faction chains. Bardhan agrees with this much at least, Congress he argues "provided a subtle a resilient mechanism for conflict management and transactional negotiations among the proprietary classes" (1984:77). The central leadership provided a system of mediation and arbitration and inter-level co-ordination in the party. The person of Nehru provided the ultimate arbiter[46].

4.2. Patronage, Discipline and Productive Investment

The Congress system was extremely flexible in incorporating a diverse array of elites into its ranks. These were then subject to the hierarchy, conflict management procedures and transactional negotiations of the system. The monopoly of patronage resources within the system generated an incentive to remain inside in the hope of future rewards. Combined these factors allowed the state to more rigorously implement its industrial policy.

[46] "Throughout the 1950s Nehru enjoyed unlimited, indeed, virtually unchallenged power over the Indian republic. He was the darling of India's people, the hero of his party, the unrivalled leader of his

The Congress party in government instituted an 'open elite system' that permitted aspiring social groups to gain a share of power within the party (Jaffrelot 2003). New leaders were accommodated as both cause and effect of the party's endemic factionalism. New groups were incorporated to reinforce the positions of existing leaders. Successful leaders were those skilful in rewarding diverse factions and communities (Weiner 1971). Votes were in turn delivered by local level bosses acting as political intermediaries between the party and electorate. This pattern varied across different areas of India, in Madhya Pradesh the Congress simply aggregated the vote banks controlled by former princes or jagidars. In Uttar Pradesh the leadership of Congress was upper caste but successfully promoted and co-opted untouchable leaders. Congress was the inclusive party with social bases of support that varied absolutely in different parts of India. In the 1971 general elections Congress drew majority support from every class, religion and caste, 65% of Sikhs, 62% of Hindus, 68% of Harijans, 65% of high and middle castes (Chhibber and Petrocik 2002). The Congress functioned as a collection of state level political parties incorporating local influences. In 1971 for example the support of Muslims in Uttar Pradesh and Gujarat for Congress far exceeded Congress's average vote in those states, while in Tamil Nadu the support of Muslims was below the average Congress vote share. In Rajasthan Congress derived support from the Jats, and the Rajputs represented the opposition. In Haryana the Congress was supported by Punjabi Hindus and upper castes while the Jats voted for the opposition Lok Dal. Although Indian society is fragmented into many different groups, according to religion, language, caste, class and ethnic differences. The all-inclusive nature of the Congress meant that until the mid-1960s these did not provide cleavages around which alternative political organisations developed.

Congress monopolised government from the centre and states down to village Panchayats. In the 1952 elections Congress received 45% of the national and 42% of votes in the assembly elections, in 1957 this rose to 48% and 45% respectively. This translated into over seventy-percent of seats in the Lok Sabha and control of almost every state government. In 1952 seventy-seven parties competed and divided the opposition,

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government." (Wolpert 1996:457).

the Socialist Party came second with 10% of the vote. In power Congress monopolised the spoils of patronage from sugar co-operatives, banking corporations, and the government allocation of resources - licenses, fertilisers, seeds and road construction. This in turn was used to cement its position in power and facilitate the party's economic programme. The monopoly of patronage resources made it rational for groups and patrons to remain within the party even if they were not gaining short-term benefits. The exit option would deprive them of any future prospect of benefits. With Congress as the 'only-game-in-town' patrons acquiesced in the Congress programme in particular higher resource mobilisation and productive public investment in the hope of future rewards.

The inclusive nature of Congress reduced extra-political conflict. Groups were brought into the Congress-system by a variety of patrons but once inside were subject to its hierarchy, conflict management procedures and transactional negotiations. This enabled the state operating alongside the dominant party system to allocate a large share of resources to those best able to make productive use of them. Groups not benefiting immediately remained inside the party. They did not have the option of cultivating alternative political patrons outside the Congress system. Industrial policy could focus on economic planning rather than containing conflict. The possibility of monitoring and imposing discipline on the public sector and on capitalists by a strong state and planning commission was a real one. Section 3.6 showed that extensive growth engineered by the state sector was efficient. Growth was based on increasing productivity, rapid diversification of the industrial sector, a balanced pattern to expansion and efficient replication of the industrial enterprise structure. Section 3.4 argued that an important source of growth came from the private sector. The state was able to ensure high rates of productive private sector investment that were complementary to its overall industrial policy.

After 1951 the state sought to develop a pre-planned industrial structure. Plan priorities for the industrial sector included targets for state investment and were translated into a structure of regulation that had a profound influence on the allocation of investment in the private sector. Section 3.4 showed that there is good evidence that the private sector

responded to the emergence of forward linkages by increasing directly productive investment. Table 5.13 showed that there was a very high level of investment in equipment between 1950/51 and 1964/65. The state created opportunities for private sector investment it was the private sector that utilised these opportunities and made more directly productive investment in equipment.

4.3. Patronage and Conflict

The Congress system allowed groups losing out from the pattern of economic development to be incorporated and compensated at minimal cost. A good example is the demobilisation of a militant labour movement in the late 1940s (Chibber 2003:Ch4). After 1945 India faced an explosion of strikes and union activity as real wages were being eroded by post-war inflation. Into the 1950s and early-1960s labour was not benefiting from the development strategy. Investment not consumption was growing strongly, public investment grew by 8.8% p.a. and private investment by 8.5% p.a. between 1961/2 and 1965/6. Government tax revenue rose from under 7% of GDP in 1950/51 to nearly 15% in 1965/66. This revenue was being raised primarily from regressive sources, notably excise duties, which increased their share of central tax collections from 16.7% to 52.6% of the total. The share of direct taxes (income and corporation taxes) declined from 42.8 to 27.0% of central tax collections over the same period (table 5.17)[47].

Table 5.17: Structure of Central Tax Collections (% Distribution)

Year	Income Tax	Corporate Tax	Direct	Customs	Excise	Indirect	Total
1950/51	32.8	10.0	42.8	38.8	16.7	51.2	100.0
1955/56	27.1	7.6	34.7	34.4	29.9	65.3	100.0
1960/61	18.4	12.2	30.6	18.7	45.8	69.4	100.0
1965/66	13.2	11.9	27.0	17.8	52.6	73.0	100.0

[47] A declining share of income taxation would likely be of little benefit to the bulk of labour. India typically has an extremely high exemption rate that removes the vast majority of labour from income tax liability.

Source: (Sundrum 1987:304).

The growth of tax revenue outpaced growth of current expenditure, public sector savings increased from 1.8% of GDP in 1958/59 to 3.5% in 1964/65. The structure of output growth was not one favouring the consumer. Between 1960 and 1965 investment in capital and intermediate goods grew by 17% p.a., the manufacturing sector grew by 9% p.a. There was negligible growth in the output of textiles whilst iron and steel, machinery and chemicals expanded strongly (table 5.15). Mean consumption fell in both rural and urban areas between 1950 and 1965, from Rs65 (per month in 1973/74 prices) to Rs49 and Rs85 to Rs60 respectively (Ravallion and Datt 1996:12). Real wages per worker in factories rose a little between 1951 and 1955 then declined back to a similar starting point in 1964 (Bhagwati and Desai 1970). An index of real wages rose from 100 in 1960 to 104 in 1967 (Tulpule and Datta 1988). Real wages in India were the same in 1964 as in 1948, there were declines between 1955 and 1964 (Mirlees 1968). Wages as a proportion of value added in manufacture fell rapidly from 53.5% in 1949 to 39.8% in 1958 then more slowly to 36.5% in 1964 (Mitra 1977). The capital-intensive pattern of economic growth led to slow growth of labour absorption. Between 1951 and 1983 factory employment increased by only 3.5% p.a. (Ahluwalia 1996). Total employment increased by only 1.63% p.a. between 1950/51 and 1964/65 (Sivasubramonian 2004:68). There was no trend decline in poverty from the early 1950s to the mid-1960s (Ahluwalia 1978; Sundrum 1987:159).

In September 1946 the incoming Congress government were confronted by two left-led labour organisations mobilised around an ideology of opposition to industrial capital. In December 1947 a Tripartite Conference was held to end hostilities. The two most important measures were firstly, the enactment of labour laws that drastically undermined the potency of collective bargaining and made unions dependent on state patronage, and secondly, the engineering of a split in the union movement. Steps were taken to curtail union independence and legislation passed to make the state and not unions the arbiter of industrial conflict. The labour legislation recognised trade unions as a legitimate vehicle

to be used by labour in pursuit of their interests, the legitimacy of strikes and collective bargaining. The Industrial Disputes Act of 1947 provided for the formation of works committees to negotiate over localised disputes. Though recognised in theory the prospect of genuine collective bargaining was severely curtailed. Unions were given little in the way of actual protection against employer coercion. The act provided that 14 days notification was needed for a strike, for public utilities the state was given the option to compel arbitration. The state was also able to declare any industry a public utility for a period of six months. The largest and most union militant federation the All-India Trade Union Congress provided the biggest component of the militant upsurge. A new federation, the Indian National Trade Union Congress (INTUC) was formed and affiliated to Congress. Every affiliated organisation was compelled to submit to arbitration when industrial disputes were not resolved by negotiation. Under patronage of the government the INTUC grew rapidly to become the largest labour organisation in the country. In return for accepting these institutional arrangements, leave, holidays, promotion, wage scales, and employment were regulated by government legislation. The most important of these was the Industrial Employment Act and Factories Act in which the state legislated for employment conditions rather than leaving them to collective bargaining. These efforts worked, strike activity quickly dropped down to pre-war levels and radical labour ceased to be a threat even as the development strategy nibbled away at real disposable income. Employment protection provided some compensation for declining real incomes.

4.4. Patronage, Incorporation and Repression

The Congress system allowed groups isolated from the development process to be incorporated and their opposition diffused. Groups fundamentally opposed to the geographical integrity of India or its basic political settlement were more easily identified and repressed.

At independence the inherited state boundaries were based on the vagaries of British colonisation, leaving large minority languages stranded in numerous states. Language in India has a crucial material aspect. Proficiency in an officially recognised language was needed for those aspiring to public employment or for entry to higher education. Some two-thirds of formal sector workers were employed by the state, Bardhan (1984/1998) listed such professionals as one of the three dominant proprietary classes. By the early-1960s language had become a means by which large numbers were (indirectly) being excluded from the benefits of development. In 1960 Assamese was adopted as the official language of Assam. This was intended to limit access to state educational and employment opportunities for the non-Assamese. The sole official language of Bihar was Hindi. According to the 1961 census only 44.3% of the population declared it as their mother tongue. The all-India Constituent Assembly had resolved to retain English for a transition period and postponed for 15 years the official implementation of Hindi. English was to remain for this time the official language of the union and inter-province communication whilst provincial languages were retained in their own states. In 1963 the Official Languages Act promised Hindi as the official language by 1965, but for English to continue as an 'associate additional official language'. This ambiguity led to large-scale riots in Tamil Nadu in 1965. There was a fear that the language riots would escalate into full-blown secessionist demands. The central state sought to avoid direct conflict and approached the problem with clear guidelines, based on arbitration and mediation with local leaders. The informal mechanisms of the Congress party organisation and its decentralised reach proved crucial in this process. The party centre promoted and supported strong state leaders to ensure mutual compromise on language issues. In 1955 the States Re-organisation Committee published its report and the southern states were re-organised in a manner that brought their boundaries into closer conformity with traditional linguistic regions. Somewhat later in 1960 Bombay province was split into Maharashtra and Gujarat, in 1966 Punjab was re-organsied and Haryana created. The political heat was removed from the language movement and its nascent leadership incorporated into the Congress party at senior levels, which then retained political power in all these new states in the 1962 elections[48].

[48] The contrast with Pakistan is striking. In 1961 the Constituent Assembly rejected that Bengali be used

In the case of groups fundamentally opposed to the geographical integrity of India and its basic political settlement the state neither incorporated nor excluded but repressed. The Maharajah of Kashmir acceded in October 1947 and his decision was backed up by military force. Hyderabad was invaded in September 1948. The communist uprising in Telengana was brutally suppressed between 1948 and 1950. Another concern was the appearance of Hindu nationalism with the assassination of Gandhi in January 1948. The nationalist RSS was swiftly banned. The fear of disorder was reflected in the constitutional creation of a strong centralised state (Brass 2000). Article 356 of the Constitution allowed for takeover of state governments by the centre. Freedom of speech was restricted by a state expanding its leeway to prosecute for 'agitational' offences - public order, decency/ morality, contempt of court, defamation, and incitement to violence. All these restrictions were imposed with the passage of the Preventative Detention Act under the authority of the constitution. The Defence of India Act was strengthened and other security measured passed such as the Terrorist and Disruptive Activities Act and Maintenance of Internal Security Act. All these enhanced the power of the state against the citizenry. These powers of preventative detention and internal security have been used extensively in Punjab, Kashmir and the North-east. Various forces under the control of the centre to maintain internal security mushroomed - the Central Reserve Police Force, the Border Security Force, and Central Industrial Security Force.

with Urdu as a national language, though over half of the population spoke Bengali and only 7% Urdu. The middle classes and vernacular elites felt humiliated by the use of only Urdu and English on banknotes. A general strike and three deaths from police action generated Bengal's first martyrs and a direct line to the massive political mobilisation in the 1960s and independence in 1971. The language issue became a convenient hook on which to mobilise opposition, in large part owing to the inept handling of the issue by the state (Rahman 1997; Talbot 1998; Jaffrelot 2002).

4.5. A Propitious Ideology in 1951

The development (Mahalanobis) model was based on extremely rapid rates of resource mobilisation, tax revenue and rising savings. These resources were ploughed back into the capital-intensive and heavy industrial sectors. This pattern of development had minimal positive impact in the short-run on living standards. The specific case of labour was discussed in section 4.3. There is some argument to show that even some elite groups excluded from the immediate benefits of development or suffering acquiesced in their own exclusion from an ideological motivation. This idea echoes the work by Woo-Cumings (1999) and others who argue that the authoritarian states of East Asia did not obtain their legitimacy through a mandate from civil society, or by following rules to gain office, rather by the project they were carrying out. Legitimacy was obtained through rapid economic development in an uncertain and dangerous cold-war world.

Varma argues that the middles classes in the 1950s had a "a certain commonality of approach and thinking, an attitude towards the nation and the society, a sense of idealism and high minded purpose transcending purely individual concerns." (1998:27). This was derived he argues from Gandhian ideological concerns of morality being an end in itself, of probity in public life and of the need for both state and society to have a sensitivity towards the poorest. The natural corollary of such concerns argues Varma were the secular state, self-reliance and a distrust of displays of wealth. In India the legitimacy of the leadership was derived from their sacrifice and struggle against the British Empire. Nehru's mantle of nearly a decade in British prisons gave him enormous popular and initially unchallenged legitimacy. The moral cause of independence enunciated by Gandhi meant "there was an ideology, a vision, a calling which the middle class could owe loyalty to." (Varma 1998:36). This vision between 1951 and 1965 was based on mobilising resources, taxation and savings, rapid rates of investment and a promise of future benefits. There was also in 1950/51 a broad ideological acceptance of the development model pursued. The Mahalanobis plan was an abrupt break with the laissez-faire of the Raj but was in keeping with the broad thrust of elite thinking in post-

Independence India. While Desai (1998) argues 'there was an alternative to Mahalanobis' he doesn't make any case that it would have better suited the political economy of post-independence India. Others while not necessarily believing in the desirability of the post-Independence development model argue convincingly it was an acceptable compromise and neatly fitted with the prevailing political economy constraints of the time (Kaviraj 1988; Chatterjee 1996). Chaterjee says "A development ideology was a constituent part of the self definition of the post-colonial state." (1996:86). Chakravarty argued the five-year plans were "especially important as attempts at giving concrete shape to the vision of transformation, social and economic, to which the modernising elite subscribe." (1987:9). Others argue that the acceptance of planning and developmental role of the state was persuasive across the ideological spectrum, from the business-orientated 'Bombay Plan', M.N.Roy's Left 'Peoples Plan', Narain's 'Gandhian Plan' for a self sufficient village economy (Patnaik 1998; Corbridge and Harriss 2000:Ch3). Khilnani (1998) makes a more positive case, that the Mahalanobis model was both desirable and politically convenient. Swadeshi he argues was important historically in the nationalist movement and associated with both the boycotting and destruction of foreign made goods[49]. The ideological and the practical coincided; self-reliance could be easily and politically profitably equated with import substitution. In the context of 1950/51 India there seemed to be no other alternative to planned economic development, there was little questioning of the new policy directions, and a general acceptance of the integrity and judgement of those who had led the independence struggle (Ahluwalia and Williamson 2003:6). Much of the populace was ideologically prepared to sacrifice immediate benefits in order to gain a future return. The ideology of independent India was a propitious one in which to rapidly raise the rates of savings and tax revenue.

[49] First articulated at the beginning of the C 20th in Bengal by Rabindranath Tagore and others and later converted into an all-India mass movement by Gandhi.

Chapter VI: The Role of the State and the Episode of Stagnation Growth in India, 1965/66 to 1979/80.

1. Summary of Chapter Findings

This chapter is divided into four main parts, the first briefly summarises the key data surrounding the episode of stagnation between 1965/66 and 1979/80, then reviews and critiques the existing set of causal explanations. The remainder of the chapter is divided into three parts, each focusing on one particular role that the state has in promoting economic development. The Indian state between 1965 and 1980 had three principal roles with regards to the domestic financial system. These were mobilising domestic savings, creating institutions to mobilise private sector savings, and allocating resources to projects essential for development. Contrary to suggestions by many authors the Indian state was very successful in mobilising resources. The pattern was very different to that prevailing between 1951/52 to 1964/65. Between 1965/66 and 1979/80 tax revenue and household savings increased while private corporate sector savings and the net inflow of savings from abroad declined. The second important financial role of the state was in allocating resources to projects essential for development. After the mid-1960s the share of total investment was dragged down by a decline in public investment. Private investment by contrast remained stable or even increased slightly after the mid-1960s. The second economic role of the state is in achieving a productive use of the surplus, in both public and private sectors. In terms of industrial growth and diversification, resource mobilisation and its productive allocation, the period 1950-65 was successful. It is only after 1965 that the economy suffered a dramatic decline in performance. A close look at more disaggregated figures shows there was quite rapid aggregate productivity growth between 1950 and 1965, then stagnation until 1980. The final section focuses on institutions that allowed the state to overcome the inherent conflicts associated with (rapid) economic development. Exogenous shocks that hit the Indian economy in the mid-1960s caused a dramatic decline in the Congress party in the

1967 elections. There was a sharp structural break in indicators of conflict after the mid-1960s and a rise of a new political economy of agriculturalism. This undermined the state's ability to allocate resources towards projects essential for development and ensure resources allocated were used productively. As a result of growing political conflict from the mid-1960s onwards allocations of public resources were not going to those capitalists or state enterprises able to make productive use of them but instead to those that needed to be accommodated for the sake of political stability. Industrial policy became increasing a means of containing conflict rather than of economic planning. There is also evidence that extensive growth by replication became less efficient after the mid-1960s. Finally, this section shows that there was an increase in pressure from demand groups including trade unions after the mid-1960s. There was a structural break in the distribution of factor incomes in the organised sector after 1965/66. This was caused both by increasing wages and also by a slowdown in productivity growth. This had a material impact on the ability of firms to finance private corporate sector investment or more specifically investment in machinery.

2. Recap from Chapter III: An Episode of Stagnation, 1965/66 to 1979/80

India suffered a slowdown in industrial growth between 1965 and 1980 relative to 1950 to 1965. Industrial growth declined from over 7% p.a. to little over 5%. This was in direct contrast to the governments aim to achieve rapid industrialisation. The slowdown is statistically significant and shows a distinct pattern by sector (Ahluwalia 1985:Ch7). Within manufacturing, industries constituting two-thirds of total value added (including machinery, transport equipment, chemicals and rubber) experienced a significant decline in growth after 1965/6. The slowdown in heavy industry was general; output growth of metal products fell from 12.5% p.a. in the first period to 2.5% in the second. Similar though less dramatic slowdowns in growth are evident in basic metals and non-metallic mineral products. The growth of textiles increased from 2.3% in the earlier period to 4.4% in the later period. Food manufacturing showed no significant change because of large year-to-year fluctuations. Other consumer industries such as beverages, tobacco, footwear, furniture, and leather and fur products showed no significant decline in growth. In terms of use and input-based groups between 1959/60 and 1979/80 there are equally striking results. Rapidly growing capital and basic goods sectors experienced the greatest downturn. More slowly growing intermediate and consumer non-durable industries experienced no deceleration. Consumer durables show rapid growth in both sub-periods. Productivity growth as measured by TFP turned negative after 1965/66.

3. Limitations of Existing Explanations

There was a wide-ranging debate examining the causes of stagnation in India[50]. This section briefly reviews the main themes from this debate, concluding they do not satisfactorily explain stagnation.

[50] See Varshney (1984) and Ahluawlia (1985) for good surveys.

3.1. Agriculture Industry Linkages

The agricultural sector has important links to the industrial sector from both demand and supply sides. In a closed economy the marketed surplus of wage goods generates a ceiling to employment growth. The marketed surplus has both a real and financial component. Food and raw materials provide direct working capital for industry. A financial surplus represents a command over resources that can be transferred to industry (Mitra 1977; Lipton 1978; Byres 1979). Agriculture may become a drag on industry by limiting the supply of industrial raw material inputs to agro-based industries. In India such industries are predominantly consumer non-durable and intermediate goods (30% of industrial sector value added). The most important agro-based industries in the 1950s were textiles, dependent on the supply of raw cotton and jute (50% of value added) and food manufacturing, dependent on the supply of sugarcane and tea (25% of value added). Agricultural incomes also account for a large proportion of final output demand in the industrial sector in terms of both income and numbers of potential consumers, 70% of the Indian population during the 1950s and 60s resided in rural areas and agriculture accounted for around 50% of GDP. In this period rural consumption was three times higher than urban consumption for clothing and, footwear. The growth of labour productivity in agriculture was an important influence on releasing labour for non-agricultural employment.

Variously (Thamarajakshi 1969, 1977, 1990; Vaidyanathan 1977; Srinivasan 1979; Patnaik 1981; Desai 1981; Mody 1982; and Sawant 1983) find no evidence of a slowdown in the agricultural sector after 1965, in terms of output, marketed surplus or net domestic availability. Mitra (1977) argues there was a distinct shift in the weighted terms of trade towards agriculture after 1965. His evidential base is poor. Desai (1981) finds the trend does not extend outside Mitra's limited time period, he finds instead no sign of a continuous improvement in the terms of trade; there was a decline in the 1950s, a rise in the 1960s and a fall in the 1970s. If wage goods were the binding constraint on industrial growth all industries should be affected, with the largest effect being on the most labour-

intensive. Industrial deceleration however was concentrated in capital and basic goods industries – the least labour-intensive. Labour-intensive consumer non-durables showed steady growth across 1951/52 to 1964/65 and 1965/66 to 1979/80. Finally food, drink, tobacco and textiles accounted for only 6% of GDP in the early-1960s; such a small sector could not have had much aggregate impact on the Indian economy. Low growth of agricultural output per capita (0.5% p.a. 1950-1980) was a continued constraint on the rest of the Indian economy and can help account for the slow growth of consumer goods output between 1951/52 and 1979/80, but not for the sudden onset of stagnation after 1965.

3.2. Import Substitution

The structural break and stagnation in industrial growth could be explained by a slowdown in import substitution after the mid-1960s and consequent erosion of the demand stimulus for industrial growth. To test this hypothesis it is necessary to relate patterns in opportunities for (potential) import substitution to patterns in industrial stagnation. Chandrasekhar (1988) argues there was indeed an exhaustion of import-substitution opportunities by the mid-1960s. In 1965/6 the share of imports in domestic availability he shows exceeded 20% in only 4 from 20 industrial groups (petroleum products, basic metals, non-electrical machinery and electrical machinery). Ahluwalia (1985) notes that the contribution of import substitution to industrial growth declined after the mid-60s for most industry groups. The general thrust of the evidence though indicates there is no clear pattern between a loss of potential opportunities for import substitution and industrial stagnation. Table 6.5 (later) shows that imports as a share of GDP declined from 7.26% of GDP in 1959/60 to 6.08% of GDP in 1965/66 and continued falling into the early 1970s, reaching a low of 4.11% of GDP only in 1972/73. For capital goods continuing opportunities for import substitution were associated with a deceleration in the growth rate of domestic output, and for consumer durables continuing import substitution accompanied continuing rapid growth of domestic output. The share of imported machinery in investment declined from 38.6% in 1961/2 to 27.8% in 1965/6

and continued to fall over next five years to 16.8%. An index of machinery imports (1960/61 = 100) rose to 103 in 1961/62, 143 in 1965/67 and only by 1970/71 declined to 74 (Rangarajan 1982:297). India had achieved minimal progress towards self-sufficiency, by commodity there was no negative correlation between import growth and growth of domestic production. Industrialisation created ongoing opportunities for import substitution (Desai 1971). More generally import substitution is only one element of demand growth. Growth depends on the whole structure of demand and supply. Trade ratios remained below 10% of GDP between 1951 and 1980, aggregate effects were not large. It is difficult to sustain the proposition that a sudden exhaustion of import substitution brought about the collapse in the growth of the capital goods industries after 1965.

3.3. Public Investment and the Structural Break

Public investment is critical in India, by the 1960s it comprised 40-50% of total organised sector investment, up from 25% in 1950/1. The slowdown in public investment after 1965-7 had a direct demand effect in certain heavy industries (Srinivasan and Naryana 1977; Patnaik 1981; Rangarajan 1982; Bardhan 1984; Chandrasekhar 1988). The structural break in infrastructure investment was dramatic and does coincide with the structural break in industrial growth after 1965-7 (table 6.9). In 1966/67 public investment was reduced by 13%. Public investment in infrastructure, which had been growing by 17% p.a. between 1960-65, grew by only 2% p.a. for the next decade.

Ahluwalia (1985) makes the strongest case against the public investment thesis, arguing that the demand for the output of heavy industries depends on *overall* investment, public or private. Total investment rose from 15.5% of GDP in 1960/61 to 19.6% of GDP in 1965/66, subsequent cuts in public investment in public investment were offset by rising private investment, hence total investment remained stable at 16-18% of GDP until 1979/80 (table 6.8). There are important problems with this argument, relating to both the differing role of public and private investment and the changing composition of both

after 1965/66. These are examined in detail later in this chapter.

3.4. Income Distribution and Economic Growth

Income distribution is usually seen as a determined variable (Ricardo and Kuznets), or as potentially a separate question from growth and efficiency[51]. In India much debate has focused on the possible negative implications of rising inequality for growth. This debate falls into two areas, the first is related to the pattern of demand. Sau (1974), Mitra (1977) and Nayyar (1978) argue that increasing inequality narrowed the population base of demand for industrial output. Bagchi (1970, 1975, 1977, 1981, 1988) and Chandra (1982) argue that demand from (high-income) elites will not ultimately solve the problem. The consumption basket of the rich they argue has a higher import content and fewer domestic linkages.

Evidence for this proposition in Sau (1974) is limited and convincingly critiqued (Rangarajan 1982). Shetty (1978) is typical of the poor use of partial and indirect evidence of rising inequality, he is convincingly critiqued (Desai 1981). M.S.Ahluwalia (1978) and Ahluwalia (1985) find no trends in inequality, certainly not a sharp shift in income distribution that could explain the sudden onset of stagnation after 1965.

The other strand of the debate has to the contrary focused on rising inequality reducing demand by raising the level of savings (Chakravarty 1979). To explain stagnation after 1965 purely in terms of aggregate demand-based explanations is theoretically incomplete (Nayar 1978, 1981; Patnaik 1984). This argument lacks a hypothesis of why the state was unable to offset stagnation originating from shifts in income distribution. Declining aggregate demand due to shifts in patterns of income or rising aggregate savings can be offset by expansionary policy by the state.

[51] The Second Fundamental Theorem of Welfare Economics (Varian 1992).

3.5. The Policy Framework Constraint on Economic Growth

The efficiency of factors hypothesis examines sources of industrial growth from the supply-side. Declining TFP generated a supply-side constraint, "cumulative inefficiency through the years may have had a stifling effect on the growth of manufacturing." (Ahluwalia 1985:140). Ahluwalia (1985), Bhagwati (1993) and many others have catalogued the negative impact of the policy framework on economic growth. These policy constraints they argue consisted of, industrial licensing, import licensing and the trade policy regime, price controls, and restrictive policies towards foreign investment and technology. Large business houses secured investment licenses to prevent entry rather than expand capacity. The Monopoly and Restrictive Trade Practises Act (MRTP) Act, 1969 did not reduce the concentration of economic power but did accentuate the slow and cumbersome functioning of the regulatory system. Indian industry was given indefinite protection from competition. High protection granted to capital and intermediate goods industries raised costs across the industrial sector. Small-sector reservation (electrical appliances, electronic equipment, several mechanical engineering products, auto parts and components) combined with various incentives provided for the small-scale sector resulted in the resistance of the small-scale sector to expansion, and fragmentation of the large into small. Uncertainties rooted in industrial policies and procedures discouraged long-term planning by industry and gave wide discretion for officials at every stage of the clearance procedure. This pushed entrepreneurs towards speculation and short-term maximisation rather than creative activity.

This general argument is difficult to reconcile with the structural break in industrial growth after 1965. This hypothesis cannot explain why India experienced rapid industrial growth until 1965, or why growth suddenly slowed after 1965 despite the contemporary steps towards liberalisation.

4. The (Economic) Role of the State, 1964/65 to 1979/80: Finance

This section examines the role of the state in mobilising and allocating the surplus.

The Indian state between 1965 and 1980 had three principal roles with regards to the domestic financial system. These were mobilising domestic savings, creating institutions to mobilise private sector savings, and allocating resources to projects essential for development.

Authors have argued there was a problem of mobilisation after 1965 (Patnaik 1981, 1998). The Indian state they argue was unable to tax property and profit income so faced a crisis of resource mobilisation by the mid-1960s. This section will demonstrate that to the contrary the state was very successful in mobilising resources. Compared to 1951/52 to 1964/65, tax revenue and household savings increased, while private corporate sector savings and the net inflow of savings from abroad declined. The rate of gross domestic savings increased rapidly, especially after banking sector nationalisation in 1969. The main contributors were public and private household savings, private corporate savings stagnated. After the mid-1960s the share of total investment was dragged down by lower public investment, which declined from a peak of 9.6% of GDP in 1965/66 to a low of 6.3% in 1970/71. Private investment by contrast remained stable or even increased slightly between the mid-1960s and early-1970s.

4.1. The Role of the State and the Mobilisation of Domestic (and foreign) Savings

There was a decline in total savings between 1966/67 to 1968/69, from 15.3% to 14.8%, then a steady and sustained rise to 22.9% in 1979/80 (table 6.1).

Table 6.1: Gross Domestic Savings, 1965/66 to 1979/80 (% of GDP at current market prices, three year moving averages).

Year	Rate of Gross

	Domestic Savings
1965/66	15.2
1966/67	15.3
1967/68	14.8
1968/69	14.8
1969/70	15.8
1970/71	16.8
1971/72	16.8
1972/73	17.6
1973/74	17.9
1974/75	19.2
1975/76	20.2
1976/77	21.4
1977/78	22.8
1978/79	22.9
1979/80	22.9

Source: (Bardhan 1984/1998:97-8).

The state achieved this rise in total savings through two means. The first was raising resources through the tax system and generating higher public sector savings (the second, related to mobilising private sector savings is examined in the next section). Between 1966/67 and 1979/80 the state sharply increased the volume of resources raised through the tax system, from 13.6 to 18% of GDP (table 6.2).

Table 6.2: Consolidated Government, 1966/67 to 1978/79

	196 6/67	196 7/68	196 8/69	196 9/70	197 0/71	197 1/72	197 2/73	197 3/74	197 4/75	197 5/76	197 6/77	197 7/78	197 8/79
Revenue	13.6	12.6	13.1	13.2	13.6	14.9	15.3	14.2	15.1	17.4	18.0	17.1	18.0
Fiscal Deficit	7.3	5.5	4.4	3.8	4.6	5.3	5.2	4.3	4.1	4.6	5.4	4.9	5.7
Primary Fiscal Deficit	6.7	5.0	4.2	3.6	4.3	4.8	4.8	3.8	3.5	3.8	4.7	4.5	5.0

Source: (Joshi and Little 1994:100, 132).

Higher revenue is not sufficient to raise the level of public sector savings; it can be dissipated in higher current (government) expenditure. During this period there was no trend in measures of the government deficit (table 6.2). Both the fiscal and primary fiscal

deficit were higher in 1966/67 and 1967/68 than subsequently. Over the whole period the government increased its contribution to total domestic savings. After a brief decline from 3.1% in 1965/66 to 2.3% in 1967/68 public sector savings increased steadily for the rest of the period to a peak of 4.8% in 1977/78 (table 6.3).

Table 6.3: Gross Savings in the Public Sector (three-year moving average) as % of GDP (current market prices).

Year	Gross Saving in the Public Sector
1965/66	3.1
1966/67	2.6
1967/68	2.3
1968/69	2.5
1969/70	2.8
1970/71	3.0
1971/72	3.0
1972/73	3.0
1973/74	3.2
1974/75	3.8
1975/76	4.5
1976/77	4.7
1977/78	4.8
1978/79	4.6
1979/80	4.2

Source: (Bardhan 1984/1998:99).

Unlike the period 1951/52 to 1965/66 there was no recourse to foreign savings to supplement domestic resource mobilisation. The net inflow of savings from abroad declined very sharply over this period, from 2.8% in 1965/66 to a low of –1.1% in 1976/77 (table 6.4).

Table 6.4: Net Inflow of Savings from Abroad (% GDP)

Year	Net Inflow of Savings from Abroad
1965/66	2.8
1966/67	2.8
1967/68	2.4
1968/69	1.5
1969/70	1.0
1970/71	0.9
1971/72	0.9
1972/73	0.8
1973/74	0.7
1974/75	0.5
1975/76	-0.3
1976/77	-1.1
1977/78	-1.0
1978/79	-0.3
1979/80	0.8

Source: (Bardhan 1984/1998:99).

The decline in foreign capital inflow was politically motivated. After 15 years of independence and widespread rhetoric on the desirability of self-sufficient economic growth India had been humiliated by the events of 1965-6. Successive droughts in 1965 and 1966 left India dependent on grain imports from the US. Using its leverage through the auspices of the World Bank, the US pressurised India into making a sharp (almost 40%) devaluation in 1966, and liberalisation of industrial and trade policies. The US failed to deliver promised aid in return for these reforms after Indian criticism of the US role in Vietnam. The Congress collapse in the 1967 elections can in part be traced to this humiliation which was widely condemned within India. The Indian state made a conscious effort to reduce dependence on foreign aid after 1966. This is clearly reflected in planning documents of the time.

"Dependence on foreign aid will be greatly reduced in the course of the Fourth Plan. It is planned to do away with concessional imports under PL 480 by 1971. Foreign aid net of debt charges and interest payments will be reduced to about half by the end of the Fourth

Plan. Planned increases in production of foodgrains, raw materials and manufactured goods are calculated to make it possible to limit the growth of other imports to manageable proportions." (Planning Commission 2003, Fourth FYP, 1969-74, Ch1:6).

These aspirations were achieved not only in terms of capital flows but also in terms of import dependence. Imports as a share of GDP fell from 7.83% of GDP in 1966/67 to a low of 4.11% of GDP in 1972/73. The ratio increased as oil prices rose between 1973/74 and 1974/75 (table 6.5).

Table 6.5: Exports and Imports as a % of GDP, 1965/66 to 1974/75.

Year	Imports as a % of GDP
1959/60	7.26
1960/61	7.73
1961/62	7.08
1962/63	6.92
1963/64	6.50
1964/65	6.09
1965/66	6.08
1966/67	7.83
1967/68	6.39
1968/69	5.77
1969/70	4.34
1970/71	4.21
1971/72	4.43
1972/73	4.11
1973/74	5.26
1974/75	6.79

Source (Sivasubramonian 2004:276).

4.1.1 The Role of the State in Creating Institutions to Mobilise Private Sector Savings

As well as mobilising resources through the tax system the state played an important role in mobilising resources indirectly, by creating institutions to mobilise private sector savings.

Private corporate savings were stagnant between 1965/66 and 1979/80, fluctuating between 1.3% and 1.8% of GDP. Household savings increased steadily from 10.5% of GDP in 1965/66 to 17% in 1979/80 (table 6.6).

Table 6.6: Gross Savings in the Private Corporate and Household sectors (three-year moving average) as % of GDP (current market prices).

Year	Gross Saving in the Private Corporate Sector	Gross Savings in the House Household Sector
1965/66	1.6	10.5
1966/67	1.4	11.2
1967/68	1.3	11.1
1968/69	1.3	11.0
1969/70	1.5	11.5
1970/71	1.6	12.3
1971/72	1.6	12.2
1972/73	1.7	12.9
1973/74	1.8	12.8
1974/75	1.8	13.6
1975/76	1.6	14.0
1976/77	1.4	15.2
1977/78	1.5	16.4
1978/79	1.6	16.6
1979/80	1.7	17.0

Source: (Bardhan 1984/1998:99)

Eighty-percent of total savings in India since Independence have originated from the household sector. Kok-Fay and Jomo (2000) argue that risk-averse households are more likely to increase (financial) savings in response to deposit security and intermediation efficiency than to interest rates. Household savings depend crucially on the availability of efficient infrastructure for deposit collection, in particular the extent of the bank branching network and efficiency of services provided to local communities. In July 1969 14 of the largest Indian scheduled commercial banks totalling 86% of deposits were nationalised. Nationalisation was accompanied by a sustained effort to spread the

coverage of banking, particularly to rural areas. A more than seven-fold increase in the number of bank branches reduced the population per bank branch from 65,000 in 1969 to 20,000 in 1979/80 (table 6.7). An increase in the geographical coverage of banks doubled the share of the rural population in total deposits from 7.2% in 1973 to 14.6% in 1993. Except for brief spells in 1973/74 and 1979/80 the state ensured a positive real return on bank deposits. The finance ratio is the ratio of total financial claims issued during the course of a year to national income and is an indicator of the rate of financial development. This ratio increased from 17.15 in 1970/71 to 33.03 in 1980/81 (Sen and Vaidya 1997). Deposits as a percentage of national income rose from 15.3% in 1969 to 51.8% in 1994. Most of this increase was in the form of time deposits. The ratio M3/GDP had declined between 1959 and 1967 then increased steadily to 60% in 1993.

Table 6.7: The Spread of Banking Facilities in India, 1960/61 to 1979/80

Year	Population Per Bank Branch/ 1000
1960/61	88
1961/62	89
1962/63	88
1963/64	85
1964/65	81
1965/66	79
1966/67	75
1967/68	73
1968/69	68
1969/70	59
1970/71	48
1971/72	43
1972/73	39
1973/74	35
1974/75	33
1975/76	30
1976/77	26
1977/78	23
1978/79	21
1979/80	20

Source: (Joshi and Little 1994:312)

4.2. Allocating resources to projects essential for development

The second important financial role of the state was in allocating resources to projects essential for development.

There was a distinct change in the pattern of investment after the mid-1960s. Between 1960/61 and 1965/66 total investment increased from 15.5% to 19.5% of GDP (table 6.8). This was due to increasing investment rates in both the public and private (household and corporate) sectors.

Table 6.8: Investment in India, 1960/61 to 1979/80

Year	Total % GDP	Total Public % GDP	Total Private % GDP
1960/61	15.5	7.6	7.9
1961/62	15.9	7.2	8.6
1962/63	16.7	8.1	8.6
1963/64	17.3	8.5	8.8
1964/65	18.0	8.9	9.1
1965/66	19.5	9.6	10.0
1966/67	18.7	8.4	10.3
1967/68	18.0	7.2	10.9
1968/69	17.8	7.0	10.8
1969/70	17.2	6.4	10.8
1970/71	16.5	6.3	10.2
1971/72	17.2	6.8	10.4
1972/73	18.2	8.1	10.1
1973/74	17.5	7.7	9.8
1974/75	16.7	6.5	10.2
1975/76	16.8	7.0	9.8
1976/77	18.6	8.5	10.0
1977/78	19.0	8.5	10.5
1978/79	18.1	8.1	10.1
1979/80	18.6	8.7	9.8

Source: (Joshi and Little 1994:330-1).

After the mid-1960s the share of total investment was dragged down by a decline in

public investment. Public investment declined from a peak of 9.6% of GDP in 1965/66 to a low of 6.3% in 1970/71, this generated a fall in total investment from 19.5% of GDP in 1965/66 to a low of 16.5% of GDP in 1970/71. Private investment by contrast remained stable or even increased slightly between the mid-1960s and early-1970s. After the early-1970s the level of total investment begins to recover led by increasing public investment and high and stable private investment.

5. The (Economic) Role of the State, 1951/52 to 1964/65: Production

This section examines the role of the state in achieving a productive use of the surplus in both the public and private sectors.

This section begins by reviewing the existing literature that argues India suffered from a failure of productivity growth between 1950 and 1980. This is the empirical foundation for authors like Chibber (2003) who argue the developmental aspirations of the state failed from the outset of independence. A closer look at the 1950-1980 period reveals a very different picture. In terms of industrial growth and diversification, resource mobilisation and its productive allocation, the period 1950-65 was successful. It is only after 1965 that the economy suffered a dramatic decline in performance. A close look at more disaggregated figures shows there was quite rapid aggregate productivity growth between 1950 and 1965 and then stagnation until 1980. 1965 also saw a sudden structural break in growth. This section reviews four crucial proximate reasons for the slowdown in productivity growth after 1965/66. These are firstly, a slowdown of diversification into high(er) productivity industries, secondly, reductions in productive public investment, thirdly, a reduction in productive private investment and fourthly, less efficient extensive growth.

5.1. Lack of Productivity, 1950-1980

The crucial role of the state in production is ensuring that the surplus be used productively, to either raise productivity in an existing market niche (learning) or upgrade to higher technology production. By 1965/66 India had diversified its industrial structure and created a broad base of capacity in basic, intermediate and capital goods. There is wide agreement that the Indian state failed to promote productivity growth in either the public or private sector between 1950 and 1980. Desai (1981) argued that high rates of industrial investment in the 1960s and 70s and a low rate of industrial growth necessarily implied a low rate of productivity growth. Raj (1984) suggested that rising ICOR's might not be due to inefficiency but to technological factors such as a more capital-intensive post green-revolution agriculture. Chakravarty (1987) suggested higher ICORs in industry could be due to a general shift to more capital-intensive sectors such as fertilisers, power and petroleum not to inefficiency per se. Ahluwalia (1985, 1991) disagrees and finds a generalised decline in capital efficiency across all industry groups between 1959/60 and 1979/80. Ahluwalia (1991) goes beyond capital-output ratios to test for changes in efficiency in the use of factor inputs by estimating TFP growth[52]. The 5.3% long-term increase in value added between 1959/60 and 1985/86 was associated with 8% p.a. growth of capital, moderate growth (3% p.a.) in employment and negligible growth of TFP (-0.4% p.a.). For intermediate goods the decline (-1.5%) was of particular significance due to the magnification effect on other industries through inter-industry input-output linkages. The largest industry in the manufacturing sector, cotton textiles experienced virtually no TFP growth over this 25 years period. Non-ferrous metals experienced growth of 11% p.a. in capital stock, 3.4% growth in labour. 0.4% in value added and -7.3% in TFP. In total 36 industries, accounting for more than 50% of value added in 1970/71 experienced negative growth of TFP. The orthodox story is of a failure of productivity.

[52] Partly in response to a comment from (Raj 1984) that capital-output ratios could be increasing due to a faster relative price increase of capital goods.

5.2. Productivity between 1950/51 and 1979/80: A Problem from Independence?

State allocation of resources to the private sector without accompanying discipline is unlikely to induce positive productivity growth and/or learning. Firms will tend to divert subsidies to more directly profitable activities (subsidies are fungible), firms may come to prefer the quiet life where profits are derived from protection and subsidies and turn to rent-seeking for more favours to boost profits rather than cutting costs and expanding markets. A necessary condition for developmental outcomes is the ability of the state to discipline business and compel productive investment and/ or learning (Grabowski 1994; Evans 1995; Khan 2000c; Huff et al 2001) etc. The rents created by government intervention after 1950/51 had an important *potential* role in facilitating productivity/ learning (Amsden 1989). It is important that rents so created were conditional. (Khan 2000b) lists some of the necessary conditions for ensuring that rents allocated by states in the form of different types of subsidies to infant industries remain efficient[53]. The bureaucracy must be competent enough to allocate rent ex-ante to potentially dynamic capitalists and ex-post strong enough to withdraw them from failing capitalists[54].

Chibber (2003) argues that the ability of the state to impose discipline on the private sector was undermined at the outset of independence, in the late-1940s and early-1950s by a concerted offensive from the capitalist class. This he argues was reflected in a watering down of the scope for discipline by the Planning Commission which lacked institutional teeth, and anaemic industrial regulatory legislation[55]. The crucial difference being Chibber argues is that India turned to import substitution and Korea (the exemplar of successful state disciplinary capacity) to export promotion[56]. Import substitution made it rational for the capitalist class to *oppose* discipline. The departure of British capital in the 1940s was leaving profitable niches for Indian capital. The domestic market offered

[53] Amsden (1997) notes that learning is subject to market failures (social benefit exceeding private benefit) among late-industrialising countries as much as innovation is among developed countries.
[54] Evans (1995) called this as 'embedded-autonomy'.
[55] There are obvious parallels with then contemporary land reform legislation where bold intentions were watered down and emerged in heavily compromised form that had little practical impact (Herring 1983).
[56] Khan disagrees arguing neither export promotion nor import substitution have distinct impacts on the ability of the state to ensure rents promote learning. The difference he argues was due to the nature of the intermediate classes in Korea and India.

large easy profit opportunities in replacing imports of consumer goods. The diversified structure of Indian business houses made it relatively easier to divert (fungible) subsidies to other branches of production. By making multiple and excessive applications for licenses and not implementing them Indian capital could reduce competition and retain oligopolistic profits. Export promotion in Korea by contrast *required* state support and discipline, to acquire new technology, in building distribution networks, in ensuring the quality and reputation of exports[57]. Whereas state discipline was a hindrance to profits in India it was a precondition in Korea, the economic strategies chosen[58] generated different incentives for private capital in relation to the state.

Chibber (2003:207) argues that from these unpromising initial conditions planning and state capacity were eroded further after 1950 by a dynamic that deligitimised state intervention. The Planning Commission (PC) was associated with failure, domestic capital managed to work the system, and other Ministries increasingly ignored the requisites of planning. The death of Nehru in 1964 deprived planning of its most influential supporter. Nehru's replacement Lal Bahadur Shastri fatally undermined the Planning Commission by forming the alternative Prime Ministers Secretariat. Indira Gandhi after 1966 marginalised the institution further treating it as simply an advisory body. Chibber's argument is that there was a failure of productivity and learning from the outset of Independence, he supports the orthodox view of the period 1950 to 1980.

It will be argued here that Chibber's pessimism about the initial conditions of planning is unduly pessimistic and that the Indian state did achieve successful developmental outcomes after 1950, especially between 1960 and 1965.

[57] State discipline provided a mutually beneficial solution to a collective action problem of a prisoners dilemma variety.

[58] The idea of the Indian state being free to choose a development strategy is obviously a questionable one, chapter IV I noted the Mahalanobis model was in many ways a product of the political economy of post-Independence India.

5.3. Productivity and Developmental Outcomes, 1950-65

In the 1950s the Indian state made rapid progress in diversifying the structure of industry. By the early-1960s the industrial structure had shifted from one dominated by textiles and sugar to one with substantial capacity in iron and steel, non-ferrous metals, machine building, coal and heavy chemicals. Between 1960/61 and 1965/6 29.93% of the growth of net value added in the registered manufacturing sector was contributed by basic intermediate goods, 25.63% by capital goods and only 4.77% from consumer durables (Chaudhuri 2002). There was an impressive growth in the range and sophistication of industrial output. Between 1956 and 1960 the weight of consumer goods in an index of industrial production dropped from 48.4% to 37.2%, basic goods increased from 22.3% to 25.1% and capital goods from 4.7% to 11.8% (Ahluwalia 1991:13). Industrial production grew by an annual average of 9% between 1961 and 1965, the sharpest increase was in the capital goods sector which showed growth of nearly 20% p.a., in basic goods only 10.5% p.a. and consumer goods a paltry 5% p.a. (Rangarajan 1982:292).

This growth was investment led. Public investment grew by 8.8% p.a., private investment by 8.5% p.a. between 1961/2 and 1965/6 (table 6.8). Between 1960 and 1965 investment in capital and intermediate goods grew by 17% p.a. and the manufacturing sector by 9% p.a. Government tax revenue rose from less than 7% of GDP in 1950/51 to nearly 15% in 1965/66. Rising revenue outpaced growth of current expenditure hence public sector savings increased from 1.8% of GDP in 1958/59 to 3.5% in 1964/65. The current account deficit fell from 2.7% of GDP (55% of exports) to 1.7% (43% of exports) in the same period. In 1965 the economy had rapid investment-led growth, with falling deficits in the current accounts and a benign inflationary environment. In terms of patterns of output growth the aims of the planning strategy were starkly effective.

5.4. A Collapse of the Developmental State after 1965-7

It is argued here that instead of planning being gradually eroded from the outset of independence only in relation to economic failure in the period *after* 1965 is it possible to argue with Herring (1999:1) that India is 'the most dramatic case of a failed developmental state' or with Shetty (1978) that India suffered a 'structural retrogression'.

There was a structural break in growth in 1965-67 (Chapter III). Industrial growth declined from over 7% p.a. to little over 5%, in direct contrast to the governments aim to achieve rapid industrialisation. The slowdown is statistically significant and shows a distinct pattern by sector (Ahluwalia 1985:Ch7). Within manufacturing, machinery, transport equipment, chemicals and rubber experienced a significant decline in growth after 1965/6. The slowdown in heavy industry was general. In terms of use-based and input-based groups rapidly growing capital and basic goods sectors experienced the greatest downturn. More slowly growing intermediate and consumer non-durable industries experienced no deceleration.

There are signs of productivity growth in the Indian industrial sector before the mid-1960s. There was a sharp decline in productivity growth *after* the mid-1960s. This structural break is hidden by long-term averages combining the 1950s, 60s and 70s by Ahluwalia and others. The relative contribution of factor accumulation actually increased from the period between 1950/51 and 1964/65 (2.32%) and between 1964/65 and 1980/81 (2.71%). The slowdown in GDP growth was caused by a sharp drop in the growth of output per unit of input (TFP growth), from 1.78% p.a. to 0.41% p.a (table 6.9). Virmani (2004b:23) agrees with these figures and shows with various estimates that TFP growth collapsed from +1.4/6% between 1950/51 and 1964/65 to –0.1/+0.6% between 1965/66 and 1979/80.

Table 6.9: Factor Inputs and Productivity Growth in India, 1950/51 to 1980/81

Period	Total Factor Input	Output per unit of input	GDP
1950/51 to 1964/65	2.32	1.78	4.10
1964/65 to 1980/81	2.71	0.41	3.12

Source: (Sivasubramonian 2004:286).

There are four crucial proximate reasons for the slowdown in productivity growth after 1965/66. These are firstly, a slowdown of diversification into high(er) productivity industries, secondly, reductions in productive public investment, thirdly, a reduction in productive private investment and fourthly, less efficient extensive growth.

5.4.1. A Slowdown in Diversification

After rapid structural change until the mid-1960s the rate of diversification into sectors of (potentially) higher productivity then slowed dramatically. The share of capital goods in industrial production dropped from 15.2% in 1970 to 15.0% in 1980, the share of intermediate goods increased only marginally over the same period, from 20.9% to 21.3% (Ahluwalia 1991:13). This reduced productivity growth from an allocational effect.

5.4.2. Reductions in Public Investment

Public investment declined from a peak of 9.6% of GDP in 1965/66 to a low of 6.3% in 1970/71, this generated a fall in total investment from 19.5% of GDP in 1965/66 to a low of 16.5% of GDP in 1970/71. Private investment by contrast remained stable or even increased slightly between the mid-1960s and early-1970s. After the early-1970s the level of total investment begins to recover led by increasing public investment and high and stable private investment (table 6.8). The relative stability of aggregate investment between 1965/66 and 1979/80 is the basis of Ahluwalia (1985) that public investment

cuts cannot explain industrial stagnation after 1965 and specifically the slowdown in the growth rate of heavy industry. She argues that the demand for the output of capital and basic industries depends on *overall* investment, public or private. This is wrong the growth of capital and basic goods industries was contingent on *public* investment. The share of infrastructure investment in total investment rose sharply from 13.2% to 21-23% between 1960/61 and the mid-1960s. After 1965/66 this share fell rapidly to a low of 10.1% in 1973/74 (table 6.10). It is infrastructure, not total investment that created a direct demand for the output of capacity created in the capital and basic goods industries. This argument is even more relevant in areas of industry reserved for state production. For example state reservation of the railway sector implied output of industries producing railway equipment was wholly dependent on related public investment. For seven of the next ten years after 1965 investment in the railway sector was reduced (Ahluwalia 1988).

Table 6.10: Infrastructure: Share in Total Investment

Year	Infrastructure
1960/61	13.2
1961/62	19.0
1962/63	22.9
1963/64	23.4
1964/65	21.3
1965/66	18.1
1966/67	13.6
1967/68	14.3
1968/69	13.8
1969/70	12.7
1970/71	13.3
1971/72	13.5
1972/73	13.7
1973/74	10.1
1974/75	11.7
1975/76	16.2
1976/77	15.8
1977/78	16.2
1978/79	13.2
1979/80	15.5

Source: (Ahluwalia 1985:78-9)

Reduced infrastructure investment after the mid-1960s led directly to a sharp decline in capacity utilisation (Srinivasan and Narayana 1977; Nayyar 1978, 1981; Patnaik 1981; Ahluwalia 1985, 1991; Chandrasekhar 1988; Chaudhuri 1998). There were sharp falls (nearly 20%) in capacity utilisation rates between 1966 and 1970 (table 6.11). Reduced public investment in the mid-1960s led to reduced output in many basic and capital goods industries in the private sector e.g. steel pipes and tubes, steel castings and forgings, industrial machinery, machine tools, and railway equipment. This was reflected in significant underutilisation of capacity, ranging from 50 to 75% in such sectors. Capacity utilisation in the production of steel ingots by public sector plants fell sharply in Bhilai from 111.8% in 1964/65 to 54.1% in 1965/66, in Durgapur from 100.6% in 1964/65 to 50.1% in 1969/70. In aluminium production capacity utilisation at HINDALCO fell from126.2% in 1965 to 72.7% in 1967. The revival of infrastructure investment (table 6.11) after 1973/74 led to some increase in capacity utilisation in capital goods from 1976 onwards.

Table 6.11: Capacity Utilisation Rates, 1960 to 1980 (%)

Industry Group	1960-5	1966-70	1971-5	1976	1977	1978	1979	1980
Basic Goods	86.0	82.0	77.4	84.8	88.3	83.8	79.3	77.2
Capital Goods	85.9	66.4	60.2	59.4	67.3	65.3	64.9	62.4
Intermediate Goods	89.3	81.9	79.7	79.6	83.0	81.4	82.0	82.5
Consumer Goods	86.6	82.2	80.1	80.9	81.8	83.8	80.2	80.1

Source: (Ahluwalia 1985:109).

Reductions in public investment led to declining capacity utilisation in the capital goods sector. This directly reduced measured rates of productivity growth. There is also evidence of a general macroeconomic relationship between demand and productivity

growth in India[59]. TFP growth shows two distinct structural breaks, in 1965-7 and 1980/1, only the latter has been properly identified and analysed. Ahluwalia (1991) finds the upturn in TFP during the 1980's to be coincident with rapid demand expansion. Mohan-Rao (1996b:3188) finds a positive correlation between output growth and TFP in Indian manufacturing. Ahluwalia and Williamson (2003:67) find a systematic relation between higher growth rates of GDP and those of TFP.

There is also more specific evidence relating reductions in public investment to slower productivity growth through a reduction in learning-by-doing. "The low level of demand for steel equipment made it difficult for HEC to move up the learning curve in a number of product areas, and affected its financial performance adversely by not allowing it to exploit scale economies. There was hardly any repetition in the production of steelmaking equipment and rolling mill equipment, which together accounted for around 65% of HMBP's capacity to produce steel plant equipment. A plate mill (40,920 tons) and a continuous casting mill (7.868 tons) were supplied for the Bhilai steel plant expansion and a sintering machine (4,108 tons) and a rolling mill (5,551 tons) were supplied for the Bokaro Stage III expansion, but none of this equipment was manufactured a second time." (Ramamurti 1987:138). Another (strange) example is that of Hindustan Machine Tools (HMT). The firm was set up in the public sector in collaboration with Oerlikons of Switz as producer of specialist machine tools. Actual production was only ever restricted to a few varieties. In the mid-1960s the firm diversified into the production of watches. The protected market was a source of easy profits and stopped the firm from going sick while rendering the specialised capacity irrelevant.

5.4.3. Changing Patterns of Private Sector Investment

Private sector investment rose from 7.9% of GDP in 1960/61 to over 10% after 1965/66 (table 6.8). There is good evidence to show that private investment was becoming less

[59] Verdoorn's law suggests there is a positive relationship between TFP growth and growth of output.

productive after the mid-1960s. Despite stable or increasing private sector investment there was a sharp fall in private corporate investment from 4.6% of GDP in 1963/64 to 1.5% of GDP in 1969/70, then continued stagnation until 1979/80 (table 6.12). The stability of total private investment as a share of GDP was achieved by an increase in less productive household investment which increased from 5.2% of GDP in 1963/64 to 9.5% in 1969/70.

Table 6.12: Unadjusted Gross Fixed Capital Formation, 1960/61 to 1989/90

Year	Total Private % GDP	Private Corporate % GDP	Private Household % GDP
1960/61	7.9	2.4	5.5
1961/62	8.6	3.5	5.1
1962/63	8.6	2.6	6.0
1963/64	8.8	3.6	5.2
1964/65	9.1	3.0	6.1
1965/66	10.0	1.9	8.0
1966/67	10.3	1.8	8.5
1967/68	10.9	1.8	9.1
1968/69	10.8	1.7	9.1
1969/70	10.8	1.3	9.5
1970/71	10.2	1.6	8.6
1971/72	10.4	1.9	8.5
1972/73	10.1	1.8	8.2
1973/74	9.8	2.1	7.7
1974/75	10.2	1.7	8.5
1975/76	9.8	2.1	7.6
1976/77	10.0	1.3	8.7
1977/78	10.5	1.7	8.8
1978/79	10.1	1.1	9.0
1979/80	9.8	1.6	8.3

Source (Joshi and Little 1994:330-1).

De Long and Summers (1991) find that the accumulation of machinery is a prime determinant of national rates of productivity growth. They find a 'clear, strong and robust' relationship between national rates of machinery and equipment investment and productivity growth between 1960 and 1985. Lee (1995) finds that openness to

international trade promotes growth by improving access to cheaper imported capital goods. The results from De Long and Summers suggest that the private return to equipment investment is below the social return, and that the social return is very high (over thirty percent). The level of private corporate investment in India declined sharply after the mid-1960s (table 6.13). Even this remaining lower level of corporate investment by the mid-1960s was shifting to lower productivity areas. There was a collapse in the growth of investment in equipment, from an average of 5.54% p.a. between 1950/51 to 1964/65 to -0.04% p.a. between 1964/65 to 1980/81 (table 6.13). By contrast the share of private construction investment in GNP 3.7% in 1964/65 to 8.2% in 1978/79 (Desai 1981:279)

Table 6.13: Growth Rates of Non-residential Net Fixed Capital Stock (1993/94 prices).

Period	Structures	Equipment	Total	Average Ratio GFCF/ GDP
1950/51 to 1964/65	6.55	5.54	6.26	16.38
1964/65 to 1980/81	6.04	-0.04	4.82	19.74

Source: (Sivasubramonian 2004:149)

5.4.4. Extensive Growth Becomes Less Efficient

Chapter V showed how growth in the 1950s was extensive in nature. Capital-intensive sectors such as steel, machine tools, motor vehicles and aluminium were set up through foreign collaboration with 1950s vintage technology. Growth was based on the horizontal diffusion of this technology and through indigenising production. A good example was HMT which opened various new factories replicating the initial technology. There are few signs that there was learning in this process but chapter V did review evidence to suggest this process of replication was efficient.

There was little sign of intensive growth and learning in existing capacity in the state owned heavy industrial sector after 1965. A major expansion of the Bhilai steel plant in

1974 required that the major part of detailed design and engineering was done by the Soviets, as was the detailed engineering and technical project work for the construction of the Visahkhapatnam plant in 1979. There was little evidence of indigenisation in plant planning, design and engineering. At Bokaro the number of Soviet specialists nearly trebled in number between 1969 and 1983 (D'Mello 1988). The number of foreign experts likewise remained high at HEC in the early 1980s, after fifteen years of production. Production judged of poor quality and rejected remained high at HEC. If learning was taking place such figures should diminish rapidly. For grey iron rolls, shaped castings and ingot-molds rejection rates remained in the range of 10-30% between the mid-1960s and early 1970s (Ramamurti 1987). Only in the case of ingot moulds was there a sign of a steady decline in this rate. Engineers in the state-owned capital-intensive sector had acquired the technological capabilities to ensure physical operation of plants but not to improve production processes. A sign of this is the very low levels of R+D, which is a very rough proxy of learning efforts. In BALCO R+D accounted for less than 0.1% of net sales, in HINDALCO less than 0.3% of net sales. Capacity utilisation in steel production in Bhilai dropped from 111.8% in 1964/65 to 54.1% in 1965/66. It never returned to those early levels, remaining in the range 80-90% into the 1980s. Capacity utilisation in steel production in Durgapur dropped from 100.6% in 1964/65 to a low of 50.1% in 1969 but then fluctuated in a range between 50 and 60% until the 1980s. The same pattern is true of production of steel in Rourkela and Bokaro and of aluminium in HALCOM (Nayar 1990). Low levels of capacity utilisation was a sign of a failure of learning not only of demand, in the late 1970s India had to import steel despite having unused capacity domestically (Nayar 1990:260).

There is likewise evidence that extensive growth by replication became less efficient after the mid-1960s. Sectoral ICOR's showed a sharp increase after the mid-1960s. In the primary sector from 2.1 between 1950/51 and 1960/61 to 4.0 between 1970/71 and 1975/76. In the secondary sector from a stable 4-5 between 1950/51 and 1965/66 to 9.4 between 1965/66 and 1970/71 to 12.3 between 1970/71 and 1975/76. In the registered manufacturing sector from 5.6 between 1960/61 and 1965/66 to 12.9 between 1965/66 and 1970/71 and 17.8 between 1970/71 and 1975/76. In the unregistered manufacturing

sector from 2.7 to 8.3 and 6.6 over the same periods. Average capital output ratios in government in chemicals increased from 3 in 1965/66 to 12.25 in 1970/71 and 14.18 in 1975/76. These patterns cannot be explained only by a fall in capacity utilisation in the capital goods sector. Capacity utilisation gradually increased (from low levels) in the 1970s (table 6.10). There is also evidence that plants set up later tended to have permanently lower levels of capacity utilisation. While early steel plants at Bhilai and Durgapur surpassed 100% capacity utilisation in their early years the Bokaro plant (opened in the mid-1970s) never achieved capacity utilisation over about 75%. The first aluminium plant Hindustan Aluminium Company (HALCOM) surpassed 100% capacity in 1965 not long after opening. The second plant Bharat Aluminium Company (BALCO) never achieved capacity utilisation greater than 67%, and for much of the period to the early 1980s operated at only a third of capacity. There was a general lack of investment in technological upgrading and plant maintenance. In the cotton mill sector in crucial technologies like blow room, carding, combing, drawing and weaving a higher fraction of machinery in 1976 compared to 1951 was 40 or more years old (Chandrasekhar 1984:28).

6. The (Political) Role of the State, 1965/66 to 1979/80: Institutions

This section focuses on institutions that allow the state to overcome the inherent conflicts associated with (rapid) economic development.

The Indian economy lurched into stagnation after the mid-1960s not because of a failure of resource mobilisation but because the surplus was being consumed and invested in a less-productive manner.

The shocks that hit the Indian economy in the mid-1960s caused a dramatic decline in the Congress party in the 1967 elections. It lost a large number of central and state level parliamentary seats, there was a sharp fragmentation of the political structure. The network of factions from the centre to local politics disintegrated, this made it harder to co-opt, mediate, funnel patronage resources, and buy off groups losing out from the

process of development. There was a sharp structural break in indicators of conflict after the mid-1960s and a rise of a new political economy of agriculturalism. This undermined the state's ability to allocate resources towards projects essential for development and ensure resources allocated were used productively. Allocations of public resources were going not to those capitalists or state enterprises able to make the productive use of them but instead to those that needed to be accommodated for the sake of political stability[60]. Industrial policy became increasing a means of containing conflict rather than of economic planning. This is the political economy explanation behind the sharp falls in public investment. Reduced infrastructure investment after 1965/66 led directly to a sharp decline in capacity utilisation with a direct impact on productivity growth through a reduced learning-by-doing. There is also evidence that extensive growth by replication became less efficient after the mid-1960s. Trade unions were able to push for large wage increases in the organised public and private sectors from the mid-1960s onwards. This had a material impact on the ability of firms to finance private corporate sector investment or more specifically investment in machinery.

6.1. Shocks Cause the collapse of Congress

The series of shocks that hit the Indian economy in the mid-1960s, the war with Pakistan in 1965 and droughts in 1965 and 1966 undermined the Congress party. In 1965/66 foodgrain output fell by 20%, in the following year another disastrous harvest saw foodgrain production rise by only 1.7%. Although real GDP was only 3% lower in 1966/67 relative to 1964/65, foodgrain availability had fallen by 10% per capita and foodgrain price inflation reached 18%. The humiliating appeals to the U.S. for food aid exposed the much-repeated aspirations to achieve self-reliance as hollow boasting. The devaluation foisted on India by the World Bank in 1966 was bitterly opposed. These shocks led directly to the sharp decline in the electoral performance of the Congress in the 1967 elections.

[60] (Khan 2000d:28) makes the same point about Pakistan in the mid-1960s.

In the 1967 general and state elections Congress returned to power in the centre with 40.8% of the vote with a 25 seat majority losing 78 seats in the central and 264 seats in the state legislative assembly's. Congress lost control of eight state governments. The decline of Congress after 1967 was not marked by the rise of a coherent opposition party in the Lok Sabha but by a sharp fragmentation of the political structure. There were striking changes in the distribution of Lok Sabha seats in the 1967 compared to the 1962 elections (table 6.14). The Hindu nationalist party the Bharatiya Jana Sangh appealing to themes of family and caste gained 21 seats in the north of India. The right-wing free market Swatantra party a coalition of urban big-business and the rural aristocracy gained 26 seats. The (newly split) Communists won 13 seats and the two socialist parties 18 seats. Perhaps the most striking measure of the incoherence of the 1967 elections was that Independents gained 15 seats. A diverse array of political groupings came to power in the eight states lost by Congress. Among the most important regional forces were the DMK cultural and linguistic nationalism in Tamil Nadu and CPI(M) class-based mobilisation in West Bengal.

Table 6.14: Elections to the Lok Sabha 1962 and 1967

Party	1962	1967
Indian National Congress	361 (44.7%)	283 (40.8%)
Bharatiya Jana Sangh	14 (6.4%)	35 (9.4%)
Swatantra	18 (7.9%)	44 (8.7%)
Communist Party of India	29 (9.9%)	23 (5.0%)
Communist Party of India (Marxist)	-	19 (4.4%)
Praja Socialist Party	12 (6.8%)	13 (3.1%)
Samyukta Socialist Party	6 (2.7%)	23 (4.9%)
Others	34 (10.5%)	45 (10.0%)
Independents	20 (11.1%)	35 (13.7%)

Source: (Sridharan 2002:478-9).

An important part of the functioning of the one party dominant system argued Kothari (1964) was a network of factions. The decline of Congress in terms of Lok Sabha seats and control over state governments undermined its structure of factions. Prior to 1967

Congress had developed an elaborate system of factions at every level of political and governmental activity. Factions provided a well-defined network for the distribution of the spoils of office, institutionalised procedures of transaction and absorbed dissent by co-opting leaders of subordinate classes. Congress "provided a subtle a resilient mechanism for conflict management and transactional negotiations among the proprietary classes" (Bardhan 1984/1998:77). The enrolment of disparate groups by leaders seeking to gain control of committees through force of numbers pushed the Congress towards an inclusive strategy.

The control of patronage resources was vital to maintain these networks. Before 1967 Congress monopolised patronage resources which made opposition difficult. Congress controlled government down to the village Panchayats, sugar co-operatives, banking corporations, and through the allocation of resources, licenses, fertilisers, and seeds. After 1967 with opposition parties in power in eight states Congress no longer monopolised patronage and the network of Congress factions began to fall apart. Capitalists could seek patrons outside the Congress system so were no longer subject to its hierarchy, conflict management procedures and transactional negotiations. With Congress no longer the only game in town it made less sense for groups losing out in the short-term to remain within the Congress system in hope of future rewards. This had two effects, the destabilising of politics and the fragmentation of the Congress party itself. The aftermath of the elections was a period of chronic political instability, the disregard of parliamentary norms, abuse of constitutional powers, and increase in class, caste and rural violence. Between March 1967 and 1970 there were 1,827 parliamentary defections to different parties, 23 state governments were constituted and collapsed. By the end of 1968 state governments had been dismissed and replaced by direct (Presidents) rule by the centre in Haryana, West Bengal, Uttar Pradesh, Bihar, and the Punjab. The state lost its ability to control and channel rent-seeking through the parallel organisation of the Congress party. Losing its monopoly of power gave an impetus to the defection of groups within the Congress. A major split occurred in the Congress in 1967 with the formation of the BKD under Charan Singh in Uttar Pradesh. This party appealed to backward or middle status cultivating peasants and became the second largest party after

mid-term state elections in 1969. Between March and November 1967, the Communist Party of India (Marxist) or CPI(M) in West Bengal became the second largest party and formed an alliance of smaller parties including Congress dissidents (the Bangla Congress) and formed the states first non-Congress. The Haryana Congress in Haryana likewise came to power in the state comprised of dissidents from Congress.

6.2. Increase in Conflict

The sudden increase in political conflict after 1965-67 extended far beyond the confines of political parties and electoral politics. There was a sharp break in indicators of conflict in the Indian polity after the mid-1960s. The incidence of riots, reported incidents of student indiscipline and workdays lost through strike action was relatively stable until 1965 then all three rose dramatically. All three measures reached a permanently higher level from 1966 onwards, riots more than doubling, strikes rising five-fold and student indiscipline rising ten or twenty-fold (table 6.15).

Table 6.15: Indicators of Demand Politics

Year	Riots (Thousands)	Student 'Indiscipline': Reported Incidents	Workdays Lost (Millions)
1960	27	80	6.5
1961	27	172	5.0
1962	29	97	6.1
1963	28	109	3.3
1964	33	395	7.7
1965	33	271	6.5
1966	35	607	13.8
1967	42	-	17.1
1968	45	2,665	17.2
1969	56	3,064	19.0
1970	68	3,861	20.6
1971	64	4,380	16.5
1972	-	6,365	20.5
1973	-	5,551	20.6
1974	81	11,540	40.3
1975	67	3,847	21.9
1976	63	1,190	12.8

1977	80	7,520	25.3
1978	-	9,174	29.7
1979	-	9,203	29.8

Source: (Rudolph and Rudolph 1987:227).

Over this same time period there was an upsurge in mobilisation of extremist political movements. In West Bengal in 1967 the Naxalbari rebellion began, starting with landless Harijans and Tribals in areas dominated by tea plantations against landlords. By May 1969 it encompassed an estimated 15-20,000 activists with groups operating in Andhra Pradesh, Kerala, West Bengal and Orissa. There was also a sharp increase in the level of communal violence. Between 1954 and 1966 the average number of communal riots per annum was 70.2, rising to 209 in 1967, 346 in 1968, and 521 in 1970. Hindu nationalists were widely considered to have been involved in the three big set piece riots between 1967 and 1970, in Ranchi, Ahmedabad and Bhiwandi, (Jaffrelot 2002:214).

The various features of a dominant party outlined by Kothari (1964) largely disappeared after the mid-1960s. Those groups outside the dominant party, various pressure groups and dissidents began to constitute alternative parties of government. Without their functional role in pressurising, criticising, censuring and influencing, Congress was free to become more rigidly centralised. The rise of Indira Gandhi to dominance within the Congress from 1968/69 onwards only accelerated this process. Brass writes of a leadership strategy after the early-1970s that became "Highly personalised and centralised and that involved unprecedented assertions of executive power." (1996:40). The elaborate mechanism of patronage and incorporation through which Congress functioned disintegrated. The party was no longer able to provide a system of co-ordination between vertical faction chains at all levels of government. Out of power Congress lost its monopoly of patronage resources and alternative competing patrons emerged. Indian society is fragmented into many different groups, according to religion, language, caste, class and ethnic differences, after the mid-1960s these began to provide cleavages around which alternative political organisations developed. The open elite system that had permitted aspiring social groups to gain a share of power within the party

dried up. Strong local and state level leaders were no longer brought into the party. The necessary decentralisation of power disappeared as power was increasingly centralised and appointments made from the top downwards (on the basis of loyalty to the central leadership) rather than bottom up (on the basis of commanding a local faction).

After 1967 Congress lost its ability to identify those requiring compensation, minimising the transaction costs associated with such transfers and rent-seeking by other entities. The state was no longer "embedded in a concrete set of social ties that binds the state to society and provides and institutionalised channels for the continual negotiation and re-negotiation of goals and policies." (Evans 1995:12). The loss of its elaborate structure of patronage networks left the Congress leadership more autonomous but without the intelligence and ability to rely on private decentralised implementation and it became increasingly incapable of resolving collective action problems. Powerful social groups began mobilising in direct opposition to the evolving pattern of development, they opposed rather than being incorporated and bought off. Political parties ceased functioning as arenas of accommodation and conflict moved instead to street violence (Kohli 1990). The most dramatic example was that of West Bengal which by 1967 had descended into chaos. The police were restricted by the new left government from intervening in the growing strife between labour and management. Parties incorporated thugs (mastans in Bengali) into their organisation to match the growing threat from other parties doing the same. Conflict was prevalent among white and blue-collar professionals and between the youth wings of various parties. Extreme violence focused against normal political channels erupted from the Naxalite movement.

6.3. A Change New Political Economy of Agriculturalism

Droughts in 1965 and 1966 and subsequent humiliating reliance on the US for grain imports gave an added political imperative to the achievement of self-sufficiency. There was a fundamental change to a Green Revolution agricultural strategy between 1964 and

1967[61]. The shift focused on the application of new technology to those best able to make use of it and a shift to price incentives through subsidising inputs and high(er)/ stable prices for output. The new technology was steered to regions where the middle peasantry was already in the ascendancy and was well placed to adopt both biochemical and mechanical innovations. Biochemical innovations (HYVs, chemical fertilisers, pesticides and the regulated flow of irrigation water) were in theory scale neutral. In practise the easier access of larger peasants to secure favourable output prices, subsidised credit and input prices implied their easier accessibility to middle peasants. The costliness and scale bias of mechanical innovations (tractors, threshers, drills, mechanical pumps for irrigation) implied they were most easily used by middle peasants.

The shift in agricultural strategy deliberately enhanced the economic status of a group of capitalist orientated middle peasants in the north of India (Byres 1981). Subsequently 'class-for-itself action' was pursued with 'relentless skill' as the economic strength of this class was translated into promoting class interests. The outcomes of these efforts were the continued absence of taxation on income from agriculture, high procurement prices, favourable inter-sectoral terms of trade, preventing the nationalisation of the grain trade in 1973, and undermining efforts at land reform. This process was reflected in the creation of the BKD party that formed the state government of Uttar Pradesh in 1969 under Charan Singh[62]. The 1969 UP elections marked a change in the nature of politics to a pattern of horizontal political mobilisation. The BKD campaigned, mobilised and governed on the basis of reducing taxation of agricultural revenues, subsidising public investment inputs and raising prices for state procurement of agricultural commodities. Charan Singh became Central Finance Minister in January 1979 and presided over the March budget dubbed the 'kulak budget'. Duty on chemical fertilisers was reduced by 50%, taxes on mechanical tillers, light diesel oil (electric waterpumps), plastic PVC pipes for irrigation reduced. The Agricultural Refinance and Development Corporation was exempted from income tax, commercial banks were given concessions for rural lending, subsidies on minor irrigation were extended to larger farms, and government expenditure

[61] (Vanaik 1990; Varshney 1998:Ch 3).
[62] In alliance with the Jan Sangh.

on dairy farms, rural electrification, and grain storage facilities was increased. These benefits accrued more or less exclusively to the rich peasantry (Byres 1981). Mitra (1977) argues the growing strength of agricultural influences led to a deliberate shift in the agriculture/ industry terms of trade towards the former[63]. Varshney (1998:49) argues food prices became a focus of political debate certainly after 1971, and traces this change directly to the Green Revolution strategy[64].

After the mid-1960s agricultural prices replaced land reform as the major element in agrarian unrest. This had major political implications. By definition land reforms could only mobilise subaltern rural classes against the landlords, never the rural sector as a whole. By contrast agricultural prices, "began to emerge as a sectoral, as opposed to a class, issue which, to the great surprise of urban intellectuals, attracted small farmers too." (Varshney 1998:81). This shifted the nature of contradiction and conflict in Indian political economy to one of urban verses rural India, rather than within the agricultural sector. Of relevant note was the gradual change in the CPI(M) in West Bengal. The party shifted from urban radicalism to an agrarian multi-class alliance. The CPI(M) gave up land-grabbing which differentiated rural classes and pursued rural-based pragmatism after its electoral victory in 1977. Surplus raising farmers (those with an objective interest in higher procurement prices) have since the mid-1960s been joined in alliance and protest by both marginal farmers and the landless. Corbridge and Harriss argue "These movements are vehicles and expressions of the interests of the richer and most commercially dependent cultivators, and that the participation by – for example – poor peasants and landless labourers in actions taken by the farmers' movements, has frequently depended upon coercion and upon the ways in which they have organised around ties of caste and kinship." (2000:105). This *coercive* perspective is too bleak, *objective* class interests in the rural sector had also changed. Technological change and the spread of irrigation reduced the size of landholdings that could still be considered marginal. Varshney (1998) estimates the cut-off point for a surplus farmer has declined

[63] Influentially but ultimately not convincingly (Desai 1981).
[64] See also (Bharadwaj 1985: Weiner 1986) among many others.

from 2.5 to 1.5 acres in the Punjab[65]. High prices may be relevant to even deficit marginal farmers, all farmers using Green Revolution technology will have to sell a part of their output to purchase Green Revolution inputs. Losses of those making net food purchases may be offset if higher price led incomes of larger farmers generate increased agricultural or non-agricultural employment.

6.4. Conflict, the Budget and Allocation

Chapter IV argued that the state budget can be an objective and encompassing measure of the conflict resolution capacity of the state. Specifically budgetary allocations in which investment, tax revenue, national savings are rising are an indication that conflict is being successfully managed. This is likely to be particularly pronounced on the expenditure side of the state budget. Taxes are more broad based and less visible whilst expenditure can more directly target/ benefit particular groups and is very visible. Section 5.2 has argued discipline is necessary to induce learning, hence diversification and productivity growths are also signs that conflict is being successfully managed. It is a key idea of this thesis that conflict is endemic in development but the state can overcome conflict through a variety of institutions, those can be inclusive (such as political parties or political leadership), repressive or ideological. This section has demonstrated both that the principal conflict management institution of the 1950s and early-1960s had by the mid-1960s collapsed.

As the ability of the state to manage conflict declined even as measures of conflict increased there were sharp shifts in the state budget after the mid-1960s. The share of capital expenditure in total central government expenditure rose steadily from the early-1950s to the mid-1960s then fell sharply, from 48.23% in 1964/65 to 32.77% in 1973/74 (table 6.16).

[65] Thus technological change is enlarging the class of 'bullock capitalists' (Rudolph and Rudolph 1987) use 2.5 acres as their definitional cut-off point.

Table 6.16: Central Government's Capital Expenditure as a Percentage of Total Expenditure (in Current Prices).

Year	%
1950-51	25.56
1951-52	33.39
1952-53	31.45
1953-54	37.23
1954-55	52.98
1955-56	46.62
1956-57	48.77
1957-58	51.77
1958-59	54.64
1959-60	46.75
1960-61	47.73
1961-62	47.18
1962-63	46.46
1963-64	47.54
1964-65	48.23
1965-66	45.83
1966-67	40.22
1967-68	37.24
1968-69	36.74
1969-70	32.74
1970-71	32.37
1971-72	32.20
1972-73	33.48
1973-74	32.77
1974-75	37.58

Source: (Rudolph and Rudolph 1987:231).

Section 6.3 noted that one of the key new 'demand-groups' growing in mobilisational strength after the mid-1960s were the green revolution farmers. This had a very direct impact on the state budget. The share of subsidies going to agriculture increased after the mid-1960s (Bardhan 1984/1998). These included subsidies to maintain farm support prices, and also provide urban consumers with lower issue prices, and to reduce the price to farmers of fertiliser, water, and diesel. Food subsidies doubled by 1976/7 then doubled again by 1984/5. Fertiliser subsidies increased from Rs 60 crore to Rs 600 crore, between 1976/7 to 1979/80. There was a massive surge in subsidies to the agricultural

sector after the early-1960s after a stable or even declining level of subsidy in the 1950s (table 6.17).

Table 6.17: Budgetary Losses on Account of Operation of Government Irrigation Systems

Year	Operating Loss Rs m at 1970/71 prices	Area Irrigated by Canals (m ha.)	Net Sown Area (m ha.)	Implicit Subsidy per ha. of canal irrigated area	Implicit Subsidy per ha. of net sown area
1950/51	365.6	8.30	118.75	44.0	3.08
1960/61	355.9	10.37	133.20	34.3	2.67
1970/71	1,370.2	12.84	140.78	106.7	9.73
1980/81	4,348.5	15.53	140.30	280.0	31.00
1982/83	5,228.4	15.37	141.77	340.2	36.88

Source: (Chakravarty 1987:127).

The growth of a political economy of agricultural rent-seeking after the mid-1960s led to the systematic diversion of developmental expenditure from infrastructure and industry to agricultural subsides and higher procurement prices. This is the political economy explanation behind the sharp falls in public investment outlined in section 4.2 and 5.4.2. Public investment declined from a peak of 9.6% of GDP in 1965/66 to a low of 6.3% in 1970/71. Public investment played the leading role in generating demand for capital goods and creating capacity in sectors providing infrastructure inputs like power, fuel and transport. Table 6.10 showed that there were particularly sharp cuts in infrastructure investment after 1965/66 (table 6.10). Reduced infrastructure investment after the mid-1960s led directly to a sharp decline in capacity utilisation (table 6.11). Scholars have found a systematic relation between higher growth rates of GDP and those of TFP in India (Ahkuwalia 1985, 1991; Mohan-Rao 1996b; Ahluwalia and Williamson 2003:67). There is also more specific evidence relating reductions in public investment leading to falling rates of capacity utilisation had a direct impact on productivity growth through a reduction in rates of learning-by-doing.

6.5. Conflict and Industrial Policy

By the mid-1970s economic stagnation, rising exports and good weather had generated an unplanned increase in foreign exchange and food reserves, removing the risk of supply bottlenecks. For some the solution was a simple one, "if the Indian economy is to break away from its recent stagnation, a return to a vigorous growth in public sector investment as part of a return to planned development is essential." (Srinivasan and Naryana 1977:106). Such a solution was simplistic and ignored the political economy constraints that existed after the mid-1960s. There was no problem of mobilisation, rather one of allocation. As a result of growing political conflict from the mid-1960s onwards allocations of public resources were going not to those capitalists or state enterprises able to make the productive use of them but instead to those that needed to be accommodated for the sake of political stability. Industrial policy became increasing a means of containing conflict rather than of economic planning. The possibility of monitoring and imposing discipline on capitalists and public sector enterprises declined. Producers were able to cultivate alternative political patrons outside the Congress system. After which they were then protected from any investigation or censure about the use they made of the subsidised resources allocated to them.

Banking nationalisation in 1969 led to a rapid growth in coverage of the banking system and emergence of large all India term-financing institutions. There was a resulting sharp increase in provision of loan capital to the private manufacturing sector by 25% p.a. from the beginning of the 1970s. These resources were absorbed unproductively by the private sector. Section 5.4 showed that the structure of private corporate investment was also becoming less productive. Investment in machinery collapsed after 1964/55 (table 6.13) while the share of private construction investment in GNP increased from 3.7% in 1964/65 to 8.2% in 1978/79 (Desai 1981:279). There size of the black economy increased from 3% of national income in the 1950s, slowly to 7% by the end of the 1960s then exploded, reaching 20% in 1981 (Kumar 1999a+b). The evolution of the production in the private sector responded to private intentions not the Mahalanobis strategy. The

regulatory structure and planning commission were becoming irrelevant. Illegal capacity was built in defiance of plan norms and regularised ex-post in various amnesties. In such an environment the state was unable to force up productivity and learning by ensuring investment resources were used productively or in already established industries by threatening to withdraw subsidies. Threats of subsidy withdrawal was not are not credible or feasible when they and other centrally allocated rights were being allocated according to political criteria (Khan 1996a+b).

Chapter V showed how growth in the 1950s was extensive in nature. Capital-intensive sectors such as steel, machine tools, motor vehicles and aluminium were set up with 1950s vintage technology through foreign collaboration. Growth was based on the horizontal diffusion of this technology and through indigenising production. There are few signs that there was learning in this process but chapter V did review evidence to suggest this process of replication was efficient. Section 5.4.4 showed there was little sign of intensive growth and learning in existing capacity in the state owned heavy industrial sector after 1965. Foreign experts were still required in large number for tasks other than day to day production engineering. Capacity utilisation fell across the board in response not just to lower levels of public investment but also to a general lack of concern with technological upgrading and plant maintenance and poor management. There is also evidence that extensive growth by replication became less efficient after the mid-1960s with sectoral ICOR's showing a sharp increase. There is also evidence that plants set up later tended to have permanently lower levels of capacity utilisation.

6.6. Labour Conflict, Profitability and Private Sector Investment

Private sector investment rose from 7.9% of GDP in 1960/61 to over 10% of GDP after 1965/66 (table 6.8). There is good evidence to show that private investment was becoming less productive after the mid-1960s. Despite stable or increasing private sector investment, there was a sharp fall in private corporate investment from 4.6% of GDP in 1963/64 to 1.5% of GDP in 1969/70, then continued stagnation until 1979/80 (table

6.12). The stability of total private investment as a share of GDP was achieved by an increase in household investment. There is evidence (section 5.4.3) that investment in machinery is an important determinant of productivity growth (De Long and Summers 1991; Lee 1995; Hendricks 2000). Even the reduced level of private corporate investment was shifting to a lower productivity areas (table 6.13). There was a collapse in the growth of investment in equipment, from an average of 5.54% p.a. between 1950/51 to 1964/65 to -0.04% p.a. between 1964/65 to 1980/81.

The sharp fall in corporate investment after the mid-1960s can in part be traced to a shift in patterns of income distribution. Section 6.2 showed that there was an increase in pressure from demand groups after the mid-1960s. Demand groups included trade unions, which were able to push for large wage increases in the organised public and private sectors from the mid-1960s onwards. Real earnings per (factory) worker declined from 100 in 1951 to a low of 91 in 1967 then rose rapidly over the next few years to 101 in 1970/1 (Subramanian 1977:716; Chakravarty 1974:211; Rudolph and Rudolph 1987:263). Real wages in Indian industry increased from 100 in 1960 to only 104 in 1967 then rose steadily in two bursts, to 120 in 1972 and to 143 between 1978 and 1982 (Tulpule and Datta 1988). Real wage in organised manufacturing increased from 1,197 rupees per year in 1960/61 to Rs 1,215 p.a. in 1967/68 then further to Rs 1,453 p.a. in 1971/72 and to Rs 1,682 p.a. in 1979/80. In agriculture from 1.43 rupees per day to Rs 1.25, Rs 1.59 and Rs 1.52 over the same time period (Joshi and Little 1994:92).

There was a structural break in the distribution of factor incomes in the organised sector after 1965/66 (table 6.18). Between 1960/61 and 1964/65 the division of GDP between employee compensation and the operating surplus of corporations was quite stable, around 67/33 to 68/32. From 1965/66 onwards there was a sharp break, by 1967/68 the ratio had shifted to 74.2/25.8, nearly 6% of GDP had shifted from organised sector corporations to labour. This was caused both by increasing wages for which evidence has been given here and also by a slowdown in productivity growth, evidence for which was been presented in section 5. This had a material impact on the ability of firms to finance private corporate sector investment or more specifically investment in machinery.

Table 6.18: Factor Incomes of Organised Sector at Current Prices

Year	Compensation of Employees, % of NDP	Operating Surplus, % of GDP
1960/61	68.87	31.13
1961/62	68.07	31.93
1962/63	68.45	31.55
1963/64	67.63	32.37
1964/65	68.76	31.24
1965/66	69.53	30.47
1966/67	71.06	28.94
1967/68	74.18	25.82
1968/69	74.22	25.78
1969/70	72.55	27.45
1971/72	72.58	27.42
1972/73	72.62	27.38
1973/74	74.08	25.92
1974/75	73.18	26.82
1975/76	71.76	28.24
1976/77	72.67	27.33
1977/78	68.62	31.38
1978/79	69.56	30.44

Source: Sivasubramonian, 2004, p37.

Mitra presents detailed evidence on profitability ratios in Indian industry and finds support for this general pattern. Profits as a percentage of total capital employed dropped from 10.1% in 1965/66 to 8.5% in 1968/69 among medium and large public limited companies (1977:149). Similar patterns exist for public limited companies broken down into five different size categories (p151-2). For Coal mining and sugar (p153), cotton textiles, jute textiles (p154), iron and steel, other non-ferrous metals and engineering (p155), and cement (p156).

6.7. The Personality of Indira Gandhi, an Alternative Explanation?

There is another view that explains the shift in Indian politics after the mid-1960s as a consequence of the death of Nehru, the subsequent succession crisis and eventual rise to power of Indira Gandhi. The death of Nehru in 1964 was important. Nehrus's presence at the centre as ultimate arbiter and toleration of decentralisation allowed effective authority to exist at all levels of Congress. Throughout the organisation Nehru and his confidants who acted as mediators and arbitrators of factional conflicts remained in "complete mastery of policy and politics" (Brass 1996:70). It was a situation of strong centre, strong states and strong leaders. All levels had the capability and legitimacy to resolve disputes and impose consensus, and if not pass the problem up to the next level. The explosion of rent-seeking can be traced to her reliance on pure patronage rather than the organisation of Congress to retain power in general elections. The collapse of the Congress organisation can be traced to her desire to cement her own position at the centre. This argument is persuasive but can be argued in structural terms that support the hypothesis here. After the electoral collapse in 1967 it may be argued Indira was driven towards radical ideological rhetoric in order to win back power for Congress. This then required splitting the Congress party which was in the mid-1960s still a very broad alliance representing all shades of the nationalist movement. Relying only on explanations that focus on the personal predilections of Indira cannot account for the fact that the organisation and institutions of nearly all political parties fragmented after the mid-1960s[66].

[66] See for example the rise of NTR in Andhra Pradesh (Kohli 1988a).

Chapter VII: The Role of the State and the Episode of Stagnation Growth in India, 1979/80 to 1991.

1. Summary of Chapter Findings

This chapter is divided into four main parts, the first outlines India's episode of growth between 1979/80 and 1991, then reviews and critiques the existing explanations for this growth. Each of the remaining three parts of the chapter focuses on one particular role that the state has in promoting economic development. The first two examine the potential economic (finance and production) roles of the state and the third the potential political role of the state (institutions). The Indian state between 1979/80 and 1991 had three principal roles with regards to the domestic financial system. These were mobilising domestic savings, creating institutions to mobilise private sector savings, and allocating resources to projects essential for development. The state managed to maintain a steady if slow rate of growth in aggregate savings, and tax revenue. Rapid growth in current expenditure undermined these efforts and public sector savings fell sharply. Private corporate sector savings grew marginally during the 1980s but household savings increased rapidly, particularly the financial component. The second important financial role of the state was in allocating resources to projects essential for development there was a sharp increase in public investment in the early-1980s. The crucial role of the state in production is ensuring that the surplus is used productively, to either raise productivity in an existing market niche (learning) or upgrade to higher technology production. There was a sharp increase in productivity growth after 1979/80. There are four reasons why productivity growth increased in the 1980s. These are firstly, higher levels of public investment, secondly, an increase in productive private investment, thirdly, the existence of large slack in capacity and fourthly, a pattern of extensive growth. Productivity growth was a somewhat haphazard process of extensive growth with few signs of learning. Despite big election victories in 1980 and 1984 this was not a restoration of the old Congress system. The party organisation had decayed and the authority and ability of

Congress to mediate in local affairs had declined sharply and there emerged an institutional vacuum in the periphery. Intense and undisciplined factionalism has led to a difficulty in retaining power, the resort to populism and conflict shifting to street violence. Congress was unable to diffuse political tensions by negotiation and incorporation of the local level leadership. In the 1950s higher public investment was associated with a sharp rise in tax revenue, increased public sector savings, and a strict control over subsidies. In the 1980s higher public investment was associated with a small rise in tax revenue, sharper increases in government current expenditure and subsidies, a massive increase in the government fiscal deficit and a sharp decline in public sector savings. The state in the 1980s did not have the institutions necessary to mobilise the necessary resources to pay for expansion and allocate the resulting burden. The explosion of rent-seeking that had occurred after the mid-1960s (Chapter VI) continued unabated. The state possessed no institution for identifying those requiring compensation, minimising the transaction costs associated with such transfers, and minimising rent-seeking by other entities. Rent-seeking and the growth of unproductive rents continued unabated and indiscriminately. Political mobilisation in agriculture generated a massive growth in subsidies (rents). Subsidies increased across the board in numerous economic sectors, reaching 15% of GDP in 1987/88. Strike activity reached new peaks in the 1980s and was quickly followed by rising wages. In the 1980s expanded levels of public investment in infrastructure and power did tackle what had hitherto been a major constraint on growth. Some plants in the public sector rapidly increased capacity utilisation, others remained mired in inefficiency. There were some signs that higher capacity utilisation was behind higher levels of productivity and ICOR's declined during the 1980s. There are few signs the incentives and opportunities generated by higher public investment were accompanied by discipline. There are also few if any signs of learning at these major industrial enterprises, expanded demand and public investment was allowing them to ignore other failings. Finally, this section concludes with evidence showing that the pattern of resource mobilisation in the 1980s was not sustainable.

2. Recap from Chapter III: An Episode of Growth, 1979/80 to 1991

Nagaraj (1990a) in 1979/80 and Bhargava and Joshi (1990) in 1980/81 found GDP growth increased from a trend average of about 3.5% to one of over 5%. Rodrik and Subramanian (2004a) find three measures related to aggregate growth performance, real GDP per capita, real GDP per worker, and TFP displayed a sharp upward trend beginning 1980. Using other statistical techniques Bai and Perron (1998, 2003) computed optimal one, two and three break points for the growth rate of per capita GDP (constant dollars and at PPP prices), GDP per worker, and TFP, in all cases they found a single break in 1979. Wallack (2003) analysed GDP and its disaggregated components for structural breaks, he found the highest F-value occurred in 1980.

3. Limitations of Existing Explanations

There is little discussion around the episode of growth 1979/80 to 1991 beyond studies identifying the statistical break. Recent exceptions are Rodrik and Subramanian (2004a) and Panagariya (2004). This section reviews briefly some of the possible explanations of factors that could have initiated the episode of growth after 1979/80 and finds they have limited explanatory potential.

3.1. Favourable External Environment?

There is a wide debate about the links between the external environment and economic growth. Kaplinsky (2001) argues foreign trade exposure may be bad for economic development, Sachs and Warner (1999) that a boom in foreign trade has the potential to initiate domestic industrialisation. Lall (1999) argues Indian export performance is passively linked to growth in the world economy. In the case of India there is very little evidence to suggest that a favourable external environment caused the pick up in economic growth in the early 1980s. The evolution of India's terms of trade since 1960

reached their most unfavourable point during the 1980s, when they declined about 20% relative to previous periods (Rodrik and Subramaniam 2004a). The structural break in growth in the early-1980s occurred simultaneously with a disastrous harvest, sharp increase in oil prices, high inflation and a large current account deficit (Joshi and Little 1994: Ch6).

3.2. External Liberalisation?

There is an extremely large literature testing the link between openness and trade liberalisation and economic growth much of it arguing in favour of a positive relationship (Dollar 1992; Sachs and Warner 1995; Krueger 1998). For the case of India there is little evidence of external/ trade liberalisation in the early-1980s significant enough to explain the structural break in economic growth. During the 1980s protection through tariffs (measured in terms of effective protection) increased and protection through quantity restrictions (QR's) (in terms of the coverage of these restrictions) declined only marginally (Das 2003b:18)[67]. These numbers understate the increase in effective protection for final/ consumer goods for much of the 1980s and 90s stemming from (limited) liberalisation of the capital goods sector. The simple average tariff increased from 94% in 1980/81 to 127% in 1989/90 (Pandey 2004). The same pattern is true by import-weighted measure. There was also an increase in the standard deviation. It was only after 1989/90 that the average tariff rate and standard deviation declined. Duty collection as a share of imports rose from over 30% in the early 1980s to nearly 45% in the late-1980s. As a share of GDP duty collections declined steadily only after the mid-1990s. Incorporating the level of export subsidies reduces the level of protection but confirms the pattern of sharply rising protection during the 1980s. The annual growth of non-oil imports and exports barely changed between the 1970s and 1980s, it was only in the 1990s that figures for both increased sharply. Crude openness indicators such as the openness ratio show how much more openness increased in the 1990s relative to the 1980s (table 7.1).

[67] Trade protection is notoriously hard to measure (Edwards 1998; Rodriquez and Rodrik 2000) etc.

Table 7.1: Measures of Trade Performance and Openness 1970s to 1990s

	1970s	1980s	1990s
Annual Growth of Non-oil import Volume	1.1%	2.8%	12.9%
Annual Growth of export volume	4.6%	4%	10.7%
Openness Ratio	9.8%	12.7%	19.3%

Source: (Rodrik and Subramanian 2004a:10).

The average trade ratio actually declined for much of the 1980s, from a local peak of 7.85% in 1980/81 to 6.22% in 1986/87 (table 7.2). There is a surge in imports in 1980/81 connected with increased oil prices but otherwise no obvious trend in the ratio of imports to GDP. The ratio of exports to GDP shows a downward trend between 1977/78 and 1985/86.

Table 7.2: The Ratio of Foreign Trade to GDP at Current Prices, 1977/78 to 1990/91 (% of GDP)

Year	Imports	Exports	Average
1977/78	6.93	6.23	6.58
1978/79	7.30	6.13	6.72
1979/80	8.97	6.30	7.63
1980/81	10.23	5.47	7.85
1981/82	9.48	5.44	7.46
1982/83	8.95	5.51	7.23
1983/84	8.44	5.21	6.83
1984/85	8.16	5.59	6.87
1985/86	8.36	4.64	6.50
1986/87	7.68	4.76	6.22
1987/88	7.49	5.28	6.38
1988/89	7.92	5.67	6.80
1989/90	8.58	6.70	7.64
1990/91	8.95	6.75	7.85

Source: (Sivasubramonian 2004:277)

Rodrik and Subramanian (2004a) use a gravity model to examine the determinants of external trade. A dummy variable for India is negative and significant in all periods until 2000. The dummy increased in value throughout the 1980s and started to decline only in the mid-1990s. This is again evidence that external trade only began to influence the aggregate economy significantly in the 1990s not the early-1980s.

The real exchange rate remained broadly unchanged during the first half of the 1980s, the rupee then experienced a real depreciation of over 40% in 1985-90. Linking this with the boom in industrial growth is difficult. A real depreciation will boost aggregate demand and can increased output in the short-term. The consequences for raising long-run productivity growth are less clear[68]. A devalued exchange rate could impact overall productivity growth through an import substitution induced reallocation effect (if tradeables are generally more productive than the rest of the economy). A raising share of tradeable goods in overall GDP can result in an economy wide productivity increase. In India the share of the manufacturing sector was too small to explain overall productivity growth in this manner.

3.3. Agriculture-Industry Linkages?

Many have argued that growth in the agricultural sector may stimulate aggregate economic growth (Ahluwalia 1985; Patnaik 1987; Nagaraj 2003b). The agricultural sector has important links to the industrial sector from both demand and supply sides. The marketed surplus has both a real and financial component. Agriculture may become a drag on industry by limiting the supply of industrial raw material inputs to agro-based industries. Agricultural incomes also account for a large proportion of final output demand in the industrial sector, in 1980/81 agriculture accounted for 37% of GDP (Joshi and Little 1994). The growth of labour productivity in agriculture is important in releasing labour for non-agricultural employment.

[68] See Rodrik and Subramanian (2004a) for a fuller explanation of this point.

There is no clear evidence that improved agricultural growth generated the structural break in economic growth in the early-1980s. There was a sharp increase in the growth rate of labour productivity which increased from 0.1% p.a. in the 1970s to 2.6% p.a. in the 1980s (Rodrik and Subramanian 2004a). There are a number of difficulties in linking this with the improvement in the aggregate economy. In quantitative terms the turnaround was much less than in manufacturing and services. If rising agricultural productivity were the underlying cause for improved productivity performance elsewhere in the economy a necessary condition according to Rodrik and Subramanian (2004a) to be met is deterioration in the agricultural terms of trade. The agricultural terms of trade reached a peak in 1973/74 and declined thereafter (Thamarajakshi 1990). The level of the terms of trade was similar in the 1980s as in the mid-1960s.

There is mixed evidence on trends in growth rates of agricultural output. Growth of foodgrain production increased from 2.37% p.a. between 1970/1 and 1977/8 to 2.94% between 1977/8 and 1985/6 (Chandrasekhar 1988). The trend rate of overall growth increased from 2.3% between 1967/8 and 1981/2, to 3.4% between 1981/2 and 1991/2 (Rao and Storm 1998). Nagaraj (1990b:2317) though finds no evidence of a break in the growth rate in the 1980s, there is remarkable stability in the growth of crop output between 1949/50 and 1987/88. These changes (if any) are too small to explain large changes in the macroeconomy. This was also a period in which industrial growth was less dependent on agricultural growth, but agriculture was becoming ever more dependent on industry. The percentage of purchased inputs to total inputs (proxy for demand for industrial inputs in agriculture) doubled from 16.4% in 1970/71 to 35.6% in 1983/84 (Thamarajakshi 1990). Industry recorded positive growth during the 1987/88 drought, whereas during previous droughts industry had gone into recession (Kurien 1989:791).

3.4. 'Internal' Liberalisation?

There is no evidence to support the view that a shift in the economic policy regime led to a structural break in economic growth in the early 1980s. The timing and magnitude of (piecemeal) internal liberalisation are not compatible with a productivity and growth takeoff in the early 1980s. There were some important steps between 1984 and 1988 to dismantle the licensing system, however as late as 1991 it remained pervasive, 60% of industry was still subject to licensing and controls (Chopra et al 1995). Of Rajiv's reforms after 1985, "In retrospect, they amounted to an acquiescence in the regime but a mild attempt at moderating its worst excesses." (Bhagwati 1993:80).

3.5. An Elite-Import-Led Growth Strategy?

Numerous authors have argued growth in the 1980s was driven by (elite) consumption of consumer durables. The output of consumer durables between grew by 16% p.a. between 1980/81 and 1988/89 compared to 7.4% for the manufacturing sector as a whole. Some sectors such as scooters, computer systems, passenger cars, domestic refrigerators, and consumer electronics show output by 1984/85 that was up to 80% above targeted figures (Nagaraj 1990b). Baru (1985) argues there were wide-ranging direct tax concessions to the property owning classes that were funded by an increasing budget deficit and higher indirect taxes on consumption of the poorest fostering he argues the growth of luxury good consumption. Patnaik (1986) argues that the luxury-consumption led growth was a deliberate anti-egalitarian strategy and heralded a narrowing of the class basis of the state. Harriss (1987) argues that growth was based on meeting pent-up demand in luxury markets. "There is a desperate effort to create and encourage within the system an upper crust of the affluent whose economic activities can support and sustain growth for a while." (Kurien 1989:795).

There are severe problems with this argument such a pattern of growth cannot explain acceleration (Kumar 1986). Luxury growth was based on the delicensing of industrial

capacity in order to enjoy economies of scale by utilising imported machinery. However the high import intensity of such investment and luxury consumption would generate few growth impulses in the domestic economy. Output would only cater to a small fraction of the population and demand would quickly reach saturation point (Bagchi 1981). There are problems with characterising the structural break in growth as being synonymous with luxury consumption. The high growth rates of consumer durables need not be equated with luxury consumption, given the widening of the domestic manufacturing base and rising per capita incomes. Radios for example have moved from the status of luxury to staple consumption. The growth of consumer non-durables is likely to have been under -estimated given that a greater share is to be produced in the unorganised sector. Finally, the consumer durables sector is simply too small to explain a turnaround in aggregate economic growth. The weight of the consumer durables sector in the indices of industrial production in the 1980/81 series was only 2.55%. The luxury-growth thesis might help explain the shift in the sectoral pattern of output growth but cannot explain the jump in aggregate growth.

4. The (Economic) Role of the State, 1979/80 to 1991: Finance

This section examines the role of the state in mobilising and allocating the surplus. The Indian state between 1979/80 and 1991 had three principal roles with regards to the domestic financial system. These were mobilising domestic savings, creating institutions to mobilise private sector savings, and allocating resources to projects essential for development.

This section will show that the state managed to maintain a steady if slow rate of growth in aggregate savings, and tax revenue. Rapid growth in current expenditure undermined these efforts and public sector savings fell sharply. Private corporate sector savings grew marginally during the 1980s. Household savings increased rapidly, particularly the financial component.

4.1. The Role of the State and the Mobilisation of Domestic (and foreign) Savings

Though the marginal rate of savings declined in the early 1980s relative to the 1970s it remained high (table 7.3).

Table 7.3: Estimates of the Marginal Rate of Saving in the Indian Economy

Period	MR(gross)S %
1970/71 to 1979/80	26.3
1980/81 to 1984/85	21.4

Source: (Chakravarty 1987:103.

The marginal continued to exceed the average rate of domestic savings throughout the 1980s leading to a steady rise in the (total) level of savings. Gross domestic savings increased from an average of 19.7% of GDP between 1980/81 to 1984/85 to 21.7% of GDP in 1989/90 (Table 7.4).

Table 7.4: Gross Domestic Savings in India, 1980/81 to 1989/90

Year	Gross Domestic Savings
Average 1980/81 to 1984/85	19.7
1985/86	19.7
1986/87	18.4
1987/88	20.3
1988/89	21.0
1989/90	21.7
Average 1985/86 to 1989/90	20.2

Source: (Chakravarty 1987:103).

There was a slow, steady rise in tax revenue during the 1980s by about 2% of GDP between the first and second half of the 1980s (table 7.5).

Table 7.5: Consolidated Government Fiscal Transfers, 1980/81 to 1990/91 (% of GDP)

	Average 1980/81 to 1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	Average 1985/86 to 1989/90
Revenue	18.1	19.5	20.0	20.1	19.6	20.9	19.5	20.0
Current Expenditure	18.6	21.4	22.6	23.1	22.7	24.8	23.9	23.0
Defence	2.7	3.3	3.8	4.0	3.8	3.6	-	3.7
Interest	2.6	3.3	3.6	4.0	4.2	4.6	4.8	3.9
Subsidies	2.6	3.3	3.4	3.5	3.6	4.2	-	3.6

Source: (Joshi and Little 1994:193).

Greater revenue mobilisation is not sufficient to raise the level of public sector savings. During the 1980s efforts to mobilise tax revenue (up 2% of GDP) were undermined by even faster growth of current expenditure. Current expenditure increased by approximately 5% of GDP between the first and second half of the 1980s (table 7.5). This increase was driven primarily by increases in defence expenditure, interest and subsidies.

Mundle and Rao (1991) examined the level and composition of subsidies for the Central and fourteen state governments in India in 1987/88. The budget and national accounts define subsidies as explicit payments made to producers to alter price or output decisions. Mundle and Rao define government subsidies as the difference between the cost of delivering various publicly provided goods and services and resultant cost recoveries. Their concept is broader and includes losses from departmental enterprises, subsidies to households implicit in the provision of social and economic services below cost, and non-recovered loans. Even this total will be an underestimate, as it does not include tax expenditures, such as the provision of higher education where the market-clearing price is higher than the actual cost of supply. They find that only 32% of the cost of social and economic services provided by the centre and states was recovered in 1987/88 giving an estimate of total subsidies of 15% of GDP.

The consolidated (centre and state) government fiscal deficit increased from 4.9% of GDP between 1975/76 and 1977/78 to 10.4% of GDP in 1990/91. The rise was steady and unrelenting (table 7.6).

Table 7.6: Consolidated Government Fiscal Deficit, 1975/76 to 1990/91 (% of GDP)

Year	Consolidated Government Fiscal Deficit
1975/76 to 1977/78	4.9
1978/79	5.7
1979/80	6.5
1980/81	8.1
1981/82	6.7
1982/83	7.3
1983/84	8.2
1984/85	9.7
1985/86	9.3
1986/87	10.9
1987/88	10.0
1988/89	9.4
1989/90	10.4
1990/91	10.4

Source: (Joshi and Little 1994:166, 193).

The net effect of slowly rising revenue and rapid growth in current expenditure led to a sharp decline in public sector savings in the 1980s. Public sector savings dropped sharply from an average of 3.7% of GDP between 1980/81 and 1984/85 to only 1.7% of GDP in 1989/90 (Joshi and Little 1994:196)

Unlike the period of stagnation (1965-80) there was a growing recourse to foreign savings during the 1980s. Foreign savings had fallen to a low of –1.1% of GDP in 1976/77. There was a steady rise during the 1980s. The net inflow of foreign savings increased from an average of 1.5% of GDP between 1980/81 and 1984/85 to an average of 2.4% of GDP between 1985/86 and 1989/90 (table 7.7).

Table 7.7: The Net Inflow of Foreign Savings in the 1980s.

	Average 1980/81 to 1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	Average , 1985/86 to 1989/90
Foreign Saving	1.5	2.4	2.2	2.1	2.8	2.4	2.4

Source: (Joshi and Little 1994:196).

4.1.1 The Role of the State in Creating Institutions to Mobilise Private Sector Savings

As well as mobilising its own resources through the tax system and facilitating the inflow of resources from foreign sources the state played an important role in mobilising resources indirectly, by creating institutions to mobilise private sector savings.

The finance ratio is the ratio of total financial claims issued during the course of a year to national income and is an indicator of the rate of financial development. The measure continued rising with the expansion of the state owned banking sector, from 33.03 in 1980/81 to 41.3 in 1985/86. The new issues ratio is the ratio of primary issues to net physical capital formation and is indicator of the extent to which the non-financial sector financed its investment through external funds. This ratio increased sharply in the 1980s, from 0.85 in 1980/81 to 1.28 in 1991/92 (Sen and Vaidya 1997). Of particular importance was the nationalised Unit Trust of India (UTI), which though formed in 1964 (as a subsidiary of the IDBI) increased its role in the mobilisation of savings in the 1980s. Its share in total financial assistance to industrial sector increased from 3.2% in 1980/81 to 22.2% in 1993/94. Bank lending increased its share as a source of finance, from 22.6% of total physical investment in 1980/81 to 1986/87 to 34% between 1987/88 to 1992/93. Equity issues plus bonds likewise increased their share from 10.4% to 22.5% (Cobham and Subramaniam 1998:1037).

The level of private corporate savings increased slightly during the 1980s, from an average of 1.6% of GDP between 1980/81 to 1984/85 to an average of 1.9% of GDP

between 1985/86 and 1989/90 (table 7.8). The principal driving influence on sustaining aggregate savings rates in India during the 1980s was private sector household saving. Household saving increased from an average of 14.3% of GDP between 1980/81 and 1984/85 to 17.8% of GDP in 1989/90. Of the two components of household saving, it was financial savings that grew most rapidly, by over 2% of GDP between the first half and end of the 1980s. The re-allocation of savings from a physical to a financial form illustrates that the government was being successful in creating institutions to mobilise private sector savings.

Table 7.8: Private Sector Savings, 1980/81 to 1989/90

	Average 1980/81 to 1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	Average, 1985/86 to 1989/90
Corporate	1.6	2.0	1.7	1.7	2.1	2.1	1.9
Household	14.3	14.5	13.9	16.5	17.1	17.8	16.0
Financial	6.7	7.1	7.9	7.8	7.3	8.9	7.8
Physical	7.6	7.4	6.1	8.6	9.8	8.9	8.2

Source: (Joshi and Little 1994:196).

4.2. Allocating resources to projects essential for development

The second important financial role of the state was in allocating resources to projects essential for development.

4.2.1. The Structural Break in Growth and Public Investment

The key to the acceleration of growth and productivity in the early 1980s was the structural break in public investment. Public investment increased sharply from the mid-1970s to the early-1980s, from 6.5% of GDP in 1974/75, to 10.1% of GDP in 1982/83. The share of public infrastructure investment increased from 4% of GDP in 1974/75 to 5.3% of GDP in 1980/81 (table 7.9).

Table 7.9: Unadjusted Gross Fixed Capital Formation (1980/81 prices, % of GDP)

Year	Total GFCF	Total Public GFCF	Public Infrastructure
1974/75	16.7	6.5	4.0
1975/76	16.8	7.0	4.3
1976/77	18.6	8.5	4.7
1977/78	19.0	8.5	4.7
1978/79	18.1	8.1	4.8
1979/80	18.6	8.7	5.2
1980/81	19.3	8.6	5.3
1981/82	19.4	9.1	5.2
1982/83	19.5	10.1	5.3
1983/84	18.3	9.6	4.7
1984/85	18.4	9.8	5.0
1985/86	18.7	9.7	4.9
1986/87	18.6	10.4	5.6
1987/88	19.4	9.6	5.2
1988/89	19.0	9.1	4.8
1989/90	18.9	9.1	4.7

Source: (Joshi and Little 1994:330-1).

5. The (Economic) Role of the State, 1979/80 to 1991: Production

This section examines the role of the state in achieving productive use of the surplus in both public and private sectors. The crucial role of the state in production is ensuring that the surplus is used productively, to either raise productivity in an existing market niche (learning) or upgrade to higher technology production. The first section shows that there was a sharp increase in productivity growth after 1979/80. There are four reasons why productivity growth increased in the 1980s. These are firstly, higher levels of public investment, secondly, an increase in productive private investment, thirdly, the existence of large slack in capacity and fourthly, a pattern of extensive growth. Productivity growth was a somewhat haphazard process of extensive growth with few signs of learning.

5.1. An Evaluation of Growth, 1979/80 to 1991

The crucial role of the state in production is ensuring that the surplus is used productively, to either raise productivity in an existing market niche or upgrade to higher technology production.

The most influential work suggesting there was a turnaround in productivity growth in the early-1980s was that by Ahluwalia (1991). Between 1965/66 and 1979/80 she found TFP growth of negative 0.3% p.a. the turnaround in the first half of the 1980s was dramatic with TFP growth of positive 3.4%. She found the best performing sectors (judged by TFP) after 1980 were chemicals, machinery, and transport. There are a number of scholars who disagree with these early findings. Balakrishnan and Pushpangadan (1994, 1996, 1998, 2000) argue that the single deflation method used by Ahluwalia is flawed, the price of materials (inputs) they argue had been rising relative to the price of output. With a single deflation method, both components of value added, the value of output and of inputs are deflated by a single price index. Balakrishnan and Pushpangadan do not find a statistically significant increase in TFP growth after the early-1980s, this result they argue is an artefact of mistakenly using a single deflation technique. Mohan-Rao (1996a+b) improves the methodology used in the early work (such as making adjustments for monopoly power in the product market and disaggregating by enterprise size and public/ private ownership) and argues both capital and labour productivity declined between 1974 and 1983/84. He argues that estimates are not robust to changes in the length of the data series. There is no difference between pre and post-1983/84 if the prior data series is extended back to 1965 or 1970, or if 1980/81 is used as the base year for the output price series. Pradhan and Basu (1999) repeat this question using micro-level studies (of various key industries such as chemicals, cement, iron and steel, and non-ferrous metals) using a longer time-series, 1963/64 to 1992/93. They suggest there may be some downward trend in TFP during 1982-1993 but the dominant pattern is of large fluctuations in the growth rate of TFP.

There are methodological problems with the pessimistic work and the balance of later argument suggests that there was an increase in TFP growth after c1979/80. The pessimistic conclusions are difficult to square with the widely accepted finding that economic growth increased while aggregate investment remained stable. Verdoorn's law for examples suggests a positive relationship between TFP growth and output growth, for which there is supporting evidence (Rao 1996b:3188). Dholakia and Dholakia (1994) find problems with the methodology in Balakrishnan and Pushpangadan, they argue these results are very sensitive to the weights used to derive the input price index. Correcting for this 'error' they find an acceleration of TFP in the 1980s relative to the 1970s. Goldar (2002, 2004) using double deflation method finds an acceleration of TFP in 1980s. The difference he argues hinges on the choice of base year for price indices (Balakrishnan and Pushpangadan use 1970/71 as a base), they use instead the 1980/81 series. Gangopadhyay and Wadhwa (1998) offer specific evidence and find rising labour productivity, capital deepening and falling labour costs in textiles, leather, metal products, and other manufacturing in the early-1980s[69]. These are the industries dominated India's export drive. Ahluwalia (1995) shows TFP growth during 1981-89 increased over the previous decade by 3.2% points. Goldar (1995) found TFP growth for the organised manufacturing sector of 1.55% between 1970/71 and 1980/81, this rose to 3.85% between 1980/81 and 1985/86, and still further to 5.05% between 1985/86 and 1990/91. Mitra (1999) found TFP increased from negative 0.76% p.a. between 1976/77 and 1984/85 to positive 5.57% p.a. between 1984/85 and 1993/94. Mitra finds the improvement in the second period to across a large number of industries and states[70]. Unel (2003) uses various means of measuring TFP. In general he finds that between 1979/80 and 1997/98 the capital-output ratio has been virtually constant while labour productivity and capital intensity have grown rapidly (table 7.10). The finding of a sharp structural break in TFP growth has been confirmed most recently by Virmani (2004a:23).

[69] The productivity turnaround in textiles dates from after 1985.

[70] There is still a productivity problem. In a large majority of states TFP growth in beverages, basic metals and metal products continues to be negative.

Table 7.10: Growth rate in variables (percentage).

Period	Total Value Added per Worker (labour productivity)	Capital per Worker (capital intensity)	Capital per unit of Output (Capital-Output Ratio)	TFP1	TFP2
1979-90	6.3	7.3	1.0	1.8	3.2
1990-91	-4.9	5.8	11	-8.8	-7.2
1991-97	7.8	7	-0.8	2.5	4.7

Source: (Unel 2003:12)

Another striking feature that emerges from cross-national evidence is the respective contributions of capital accumulation and TFP growth to overall productivity growth. Prior to 1980 the contribution of TFP growth to overall productivity growth (10%) was lower in India than any other region except the Middle East, even Sub-Saharan Africa. Since 1980 nearly 60% of overall growth has been accounted for by TFP, matched only by China, and not even East Asia.

There are four reasons why productivity growth increased in the 1980s. These are firstly, higher levels of public investment, secondly, an increase in productive private investment, thirdly, the existence of large slack in capacity, and fourthly, a pattern of extensive growth.

5.1.1. Sources of Productivity: Public Investment

Chapter V showed how public investment increased rapidly in the 1950s increasing industrial capacity and along with trade protection a demand for the output of industry. Growth in the 1950s was based on rapid diversification of the industrial structure. The pattern of growth was also balanced, with relatively high rates of capacity utilisation in all major economic sectors. New plants established in sectors such as steel and aluminium rapidly reached full capacity. Growth during the 1980s was likewise based on rapid increases in public investment. Public investment was focused on a few key

constraints that enabled alleviated bottlenecks in growth for both the public and private sectors. The Sixth Five-Year Plan (1980/81 to 1984/85) identified some of these key constraints as they had emerged during the late-1970s.

"The experience of the recent past shows that a lack of co-ordination among critical sectors acts as a general drag on economic growth. Production capabilities created after a massive investment effort remain underutilised due to shortfalls in performance of a few sectors." (Planning Commission 2003, Sixth FYP:Ch3:7)

"Trends in capacity utilisation up to 1979/80 in major industries have been a source of considerable concern because in most cases there has been a decline after 1976/77.....while the poor use of capacity represents a waste of resources and thus adds to the resource constraint, it also provides an opportunity for a quick increase in output and productivity in the short run.....The poor utilisation of capacity in agriculture as well as in industry stems from many factors but the major problem areas can be located in the basic infrastructure of power and transport." (Planning Commission 2003, Sixth FYP:Ch3:1).

Not only did the level of public investment increase (Table 7.1) its composition also shifted towards a more growth-enhancing pattern (as identified by the Sixth FYP). Public investment increased by 4.9% 1980/81, 12.5% in 1981/92 and 15.9% in 1982/83 (there were more moderate increases in the next two years), in the same years infrastructure investment increased by 8%, 6.1%, 5%. The most pronounced increases were in infrastructure sectors such as coal, electricity, nitrogenous fertiliser, phosphatic fertiliser and cement (Nagaraj 1990:2321). The share of power in public plan expenditure rose from 18.8% during the Fifth FYP (1974/75 to 1978/79) to 28.3% in the 6th FYP (1980/81 to 1984/85). All-India power supply increased by 25% between 1979/80 and 1982/83 and steadily reduced the percentage shortfall from requirement from 16.1% in 1979/80 to 9.2% in 1982/8 Ahluwalia (1985:97). Energy consumption increased sharply, from 5.12% p.a. between 1970/71 and 1980/81 to 6.93% p.a. between 1980/81 and 1990/91 (Sivasubramonian 2004:265). New sources of fuel were expanded especially rapidly.

The availability of natural gas increased by 23.69% p.a. between 1980/81 and 1990/91, from 0.47% in the earlier period, and lignite 10.69% (from 4.18%).

5.1.2. Sources of Growth, Private Investment

The level of total private investment stagnated between the mid-1970s and 1989/90, falling to a low of 8.6% of GDP in 1984/85 (table 7.11). This figure hides a very dramatic change in the composition of private investment. The rise in, and changing patterns of public investment generated a dramatic response by the private sector. Private corporate investment dropped sharply after the mid-1960s in response to cuts in public investment, remained low before surging ahead in the early-1980s, from 1.1% of GDP in 1978/79 to 4.4% of GDP in 1982/83.

Table 7.11: Unadjusted Gross Fixed Capital Formation (1980/81 prices, % of GDP)

Year	Total Private	Private Corporate	Private Household
1974/75	10.2	1.7	8.5
1975/76	9.8	2.1	7.6
1976/77	10.0	1.3	8.7
1977/78	10.5	1.7	8.8
1978/79	10.1	1.1	9.0
1979/80	9.8	1.6	8.3
1980/81	10.7	2.6	8.1
1981/82	10.3	3.7	6.6
1982/83	9.3	4.4	5.0
1983/84	8.7	3.3	5.4
1984/85	8.6	3.7	4.9
1985/86	9.0	3.9	5.1
1986/87	8.1	4.2	3.9
1987/88	9.7	3.2	6.5
1988/89	9.9	3.2	6.7
1989/90	9.9	3.1	6.8

Source: (Joshi and Little 1994:330-1).

De Long and Summers (1991) find that the that the accumulation of machinery is a prime determinant of national rates of productivity growth. They find a 'clear, strong and robust' relationship between national rates of machinery and equipment investment and productivity growth, and that countries investing heavily in equipment enjoyed rapid growth between 1960 and 1985. The results from De and Summers suggest that the private return to equipment investment is below the social return, and that the social return is very high (they estimate over thirty percent). There was a boom in investment in equipment, from an average growth rate of 0.52% between 1970/71 and 1980/81 to 12.52% between 1980/81 and 1990/91 (table 7.12).

Table 7.12: Growth Rates of Non-residential Fixed Capital Stock, Net at 1993/94 Prices

	Net Fixed Capital Stock			
Year	Structures	Equipment	Total	Average Ratio GFCF/ GDP
1960/1 to 1970/1	7.66	0.62	5.86	19.16
1970/1 to 1980/81	5.27	0.52	4.50	19.49
1980/81 to 1990/91	3.41	12.52	5.06	21.01

Source: (Sivasubramonian 2004:149).

The government was able to make a credible commitment to sustained higher public investment in the early-1980s. The fact of credibility generated a disproportionate response by the private sector. It is the perceived permanence or credibility of changed incentives that is crucial in motivating a response by the private sector (Rodrik 1989). Between 1970/71 and 1972/73 there was an equally sharp rise in public investment, without sparking increased rates of private investment. The series of economic shocks that hit the Indian economy at the end of the 1970s were severe. The 1979 drought was the worst since Independence, agricultural production went down by 15.2% and foodgrain production by 17.6%. Inflation accelerated and industry went into recession. In addition the OPEC oil price increase reduced the terms of trade by 33% between 1979

and 1980[71]. The oil import bill increased from $2bn in 1978/79 to $6.6bn in 1980/81. Policy changes in response to a shock provide an ideal opportunity to establish credibility. The debate over the 1981 IMF Loan provided a forum for the Indian government to signal its policy intentions (Ghosh 1998). The government did not respond with fiscal contraction and import controls as it had in previous crises after 1965 and 1973. Instead the government sought borrowing for expansionary adjustment, to increase investment especially in oil and infrastructure, the IMF applied only minimal conditionalities. The large stocks of foodgrains, low foreign debt, foreign exchange reserves and low-conditionality IMF agreement made expansion credible. Public investment increased despite recession, declining manufacturing output between 1979/81 and 1981/82, and high inflation (which reached 14% between 1981/82 and 1982/83). There was minimal adjustment on the current account which was still registering a deficit of 1.8% of GDP (26% of exports) in 1984/85. The rate of public investment was sustained and increased after the 1979/80 economic crisis; in stark contrast to the recession of 1965/6 when public investment was cut sharply.

5.1.3. Fiscal Expansion and Slack

Table 7.13, column one shows the actual fiscal deficit from 1974/75 to 1989/90. This is an insufficient measure of the state's fiscal stance. The economic cycle will impact on tax revenues and expenditures. The second column measures the cyclically neutral fiscal deficit. This is what the deficit would be were the economy at a normal point in the economic recession (the deficit without the impact of boom or recession). The fiscal impulse measures the difference between these two columns. A positive fiscal impulse means the state is adding to aggregate demand. The rise in the actual deficit in the late-1970s/ early-1980s, from 4.9% of GDP in 1977/78, 5.7% in 1978/79, and 6.5% in 1979/80 is only partly due to expansionary fiscal policy. The economic recession connected with the rise in global oil prices increased the cyclically neutral fiscal deficit.

[71] Higher world interest rates did not have much impact in India, unlike many other LDC's had not engaged in variable-interest commercial borrowing in the 1970s.

The fiscal impulse over these years was quite minor. Section 5.1.3 argued it was the changing composition not level of state expenditure that *initiated* the episode of growth after 1979. It was only by the late-1980s that the stance of fiscal policy became strongly expansionary and *sustained* the episode of growth. From 1984/85 the fiscal impulse ranged between 4 and 6%.

Table 7.13: Consolidated Government: Fiscal Stance and Fiscal Impulse, 1974/75 to 1989/90

Year	Fiscal Deficit	Cyclically Neutral Fiscal Deficit	Fiscal Impulse
1974/75	4.1	5.1	-1.0
1975/76	4.6	4.2	0.4
1976/77	5.4	5.2	0.3
1977/78	4.9	4.6	0.3
1978/79	5.7	4.4	1.3
1979/80	6.5	6.8	-0.3
1980/81	8.1	6.3	1.8
1981/82	6.7	5.9	0.8
1982/83	7.3	6.1	1.2
1983/84	8.1	5.5	2.6
1984/85	9.7	5.7	3.9
1985/86	9.3	5.6	3.8
1986/87	10.9	5.6	5.3
1987/88	10.0	5.6	4.5
1988/89	9.4	4.5	4.9
1989/90	10.4	4.4	5.9

Source: (Joshi and Little 1994:233.

In 1979/80 there was sufficient slack in the economy to enable expanded public sector investment to generate sharp increases in growth and productivity. The Sixth FYP (Planning Comission 2003:Ch3:1) noted that capacity utilisation in a range of important sectors had declined over the second half of the 1970s. In Saleable Steel (integrated plants) from 91.9% in 1976/77 to 69.1% in 1979/80, aluminium from 83.5% to 58.2%, in Fertilisers (stabilised plants) from 66.0% to 61.5%, in cement from 86.6% to 72.6%, in

newsprint from 76.9% to 63.2%, in paper and paper board from 79% to 68.2%, and in thermal power generation from 56% to 45%. Despite higher manufacturing growth in the 1980s there was no expansion of employment growth in the registered manufacturing sector in the 1980s. Between 1982/83 and 1986/87 there was growth in real net value added, in the capital intensity of production and earnings per worker, but the absolute number of workers declined. Nagaraj argues the increase in earnings per worker, "was mainly on account of an above average increase in the number of days worked per worker." (Nagaraj 1994:178). Between 1980 and 1989 annual earnings per worker went up by 3.5%. Nearly half of this growth in earnings represented an increase in man-days, the wage rate for the standard working day rose only by 1.5% p.a. (Nagaraj 1994, 2000b; Bhalotra 1998). There was an overhang of employment after a prolonged period of stagnation since the 1960s. After the pickup in economic growth firms first used existing stock of labour (and capital) more intensively, linking wage agreements to productivity, reorganising production, subcontracting the manufacture of components, and increasing use of part-time workers[72]. This caused the increase in man-days without higher person-employment. Higher investment and more capital-intensive options were explored only after these other options were used up.

5.1.4. Extensive Growth

Growth in the 1950s was extensive in nature, based on the horizontal replication of industry and production. Chapter V shows there is evidence this process of growth by replication was efficient. By contrast the period of the Sixth Five-Year Plan was about utilising the then existing industrial capacity in the public sector more efficiently and hence raising productivity. A major part of this was expanded investment in what had hitherto been a major constraint on growth, power supply and infrastructure.

[72] The share of casual workers in total employment increased from 4.6 to 10% between 1980/81 and 1986/7. This is significant but not enough to account for the sharp increase in man-days worked which was also dependent on intensified working conditions among existing employees.

Between 1951 and 1965 new capacity in most of the major industrial enterprises quickly reached maximum capacity utilisation. In 1964/65 capacity utilisation (production of steel ingots by public sector plants) was 111.8% in Bhilai, 100.6% in Durgapur, 97.9% in Rourkela. In 1965 capacity utilisation (production of primary aluminium) was 126.2% in HINDALCO. The pattern of changes in capacity utilisation after c1980 is much more haphazard, some plants prospered and others continued to stagnate. Public sector steel producers for example showed very mixed fortunes (table 7.14). Bokaro increased capacity utilisation rapidly after the late 1970s. Capacity utilisation at TISCO (not given in the table) increased from an average of 88.3% in the 1970s to 105.3% in 1987/88. Capacity at Bhilai remained well utilised while at Durgapur, Rourkela and IISCO capacity utilisation remained stagnant or even declined. Capacity utilisation at HINDALCO (production of primary aluminium) quickly rose from 77.8% in 1979 to 102.1% in 1987, and at BALCO from 30.1% in 1979/80 to 91.1% in 1987/88. The achievement of self-sufficiency in power by HINDALCO occurred with the addition of large extra capacity in captive power plants in 1981 and 1983, this was a crucial factor in allowing the firm to rapidly expand output.

Table 7.14: Production of Ingot Steel by Public Sector Plants

Year	Bhilai	Bokaro	Durgapur	Rourkela	IISCO
1979/80	84.3	57.0	55.1	70.4	56.5
1980/81	81.6	36.9	46.3	64.7	60.9
1981/82	84.6	71.7	58.1	66.8	60.0
1982/83	85.2	73.2	59.5	63.6	62.4
1983/84	73.6	67.2	50.0	60.4	54.3
1984/85	79.9	77.0	47.5	62.2	44.4
1985/86	93.8	80.1	54.7	65.4	55.3
1986/87	89.2	82.2	57.6	61.1	52.8

Source: (Nayar 1990:158-9).

The Sixth FYP (quoted earlier) was correct in arguing investment targeted at removing bottlenecks and allowing existing capacity to be utilised could have rapid effects on productivity. The all-India capital-output ratio declined from 5.40 to 4.45 between

1970/71 and 1979/80 to 1980/81 and 1983/84 (table 7.15). Alternatively the ICOR declined from 5.773 to 4.009 between 1973 and 1980 (Tendulkar and Sen 2003:187).

Table 7.15: Estimates of Incremental Capital-Output Ratios in the Indian Economy

Period	Gross Ratio	Net Ratio
1970/71 to 1979/80	5.40	4.11
1980/81 to 1983/84	4.45	3.38

Source: (Chakravarty 1987:105.

There are few signs the incentives and opportunities generated by higher public investment were accompanied by discipline. Some public sector firms responded to higher public investment by expanding output, others remained mired in inefficiency and failed to utilise capacity. There are few if any signs of learning at these major industrial enterprises, expanded demand and public investment were allowing them to ignore other failings. The energy consumption per unit of output in steel plants was increasing over the 1980s, indicating a lack of learning and growing inefficiency at plant level (table 7.16).

Table 7.16: Specific Energy Consumption (mega calories) in Integrated Plants

	Per ton of Saleable Steel[73]			Per ton of Ingot Steel		
Plant	1976/77	1981/82	1983/84	1976/77	1981/82	1983/84
Rourkela	12.63	12.51	15.52	7.60	7.21	12.30
Bhilai	9.01	10.19	14.77	6.20	7.08	12.36
Durgapur	10.44	12.14	19.55	7.62	8.76	14.60
Bokaro	10.04	11.97	21.76	6.61	7.06	16.67
IISCO	14.94	16.39	31.06	11.82	12.58	23.20

Source: (Das 1992:290).

Labour productivity at public sector steel plants was either stagnant or declining over the course of the 1980s (table 7.17).

[73] The energy consumption per ton of crude steel in Japan, Austria, West Germany, US and UK was 5,

Table 7.17: Labour Productivity (Ingot tonnes per man year)

Year	Bhilai	Bokaro	Rourkela	IISCO	TISCO
1971/72	70	-	35	36	46
1972/73	72	-	50	24	45
1973/74	63	-	42	24	40
1980/81	69	48	43	33	63
1981/82	71	77	47	34	62
1982/83	71	72	44	34	64
1983/84	63	63	42	28	64
1984/85	69	69	43	22	68
1985/86	65	68	46	30	68
1986/87	61	68	44	29	74

Source: (Nayar 1990:202)

6. The (Political) Role of the State, 1979/80 to 1991: Institutions

This section focuses on institutions that allow the state to overcome the inherent conflicts associated with rapid economic development.

The first section shows how despite big election victories in 1980 and 1984 there was no restoration of the old Congress system. The party organisation had decayed and the authority and ability of Congress to mediate in local affairs had declined sharply, an institutional vacuum had emerged. Intense and undisciplined factionalism led to a difficulty in retaining power, the resort to populism and conflict shifted to street violence. Congress was unable to diffuse political tensions by negotiation and incorporation of the local level leadership. The second section compares the increase in public investment over the 1980s to the increase between 1953/54 to 1964/65. In the 1950s this was associated with a sharp rise in tax revenue, increased public sector savings, and a strict control over subsidies. Between 1979/80 and 1989/90 higher public investment was associated with a small rise in tax revenue, sharper increases in government current

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5.25, 5.5, 6.25 and 6.5 mega-calories respectively.

expenditure and subsidies, a massive increase in the government fiscal deficit and a sharp decline in public sector savings. The state in the 1980s did not have the institutions necessary to mobilise the necessary resources to pay for expansion and allocate the resulting burden. There was more than simply a problem in allocating the burden of higher public investment. The state possessed no institution for identifying those requiring compensation, minimising the transaction costs associated with such transfers, and minimising rent-seeking by other entities. Rent-seeking and the growth of unproductive rents continued unabated and indiscriminately. Political mobilisation in agriculture generated a massive growth in subsidies (rents). Subsidies increased across the board in numerous economic sectors, reaching 15% of GDP in 1987/88. Chapter V showed that labour did not derive much benefit from growth between 1951 and 1965, indirect taxation was growing rapidly, real wages if anything declined, employment growth was slow and poverty remained little changed. Congress was successfully able to diffuse opposition from organised labour by incorporating the union movement within the party via an affiliated trade union congress (the INTUC) and pro-labour legislation. The number of strikes remained low until the mid-1960s, when they took off rapidly, this generated increased rents in the form of rapid rises in real wages. The labour movement progressively fragmented from the mid-1960s onwards, organisation at the apex splitting along ideological and party lines. Strike activity reached a new peak in the 1980s and was quickly followed by rising wages.

The final section recaps that growth in the 1950s was extensive in nature (Chapter V) based on the horizontal diffusion of this technology and through indigenising production. There are few signs that there was learning in this process but Chapter V did review evidence to suggest that growth by replication was efficient. In the 1980s expanded levels of public investment in infrastructure and power did tackle what had hitherto been a major constraint on growth. Some plants in the public sector rapidly increased capacity utilisation, others remained mired in inefficiency. There were some signs that higher capacity utilisation was behind higher levels of productivity and that ICOR's declined during the 1980s. But there are few signs the incentives and opportunities generated by higher public investment were accompanied by discipline. There are also few if any

signs of learning at these major industrial enterprises, expanded demand and public investment was allowing them to ignore other failings. Finally, this section concludes with evidence showing that the pattern of resource mobilisation in the 1980s was not sustainable.

6.1. The Decayed Congress System

After the defeat in 1977 Congress came back to power in 1980 winning 351 parliamentary seats with 43% of the vote. There are superficial signs the Congress victories of 1980 and 1984 restored the party to a situation of national and state level pre-eminence (table 7.18).

Table 7.18: Parliamentary Election Results, 1952-84

Election of Party	1952	1957	1962	1967	1971	1977	1980	1984
Congress (%)	45.0	47.8	44.7	40.8	43.7	34.5	42.7	49.6
Second Largest Party (%)	10.6	10.4	9.9	9.4	10.4	41.3	19.0	7.7
No of Seats	364	371	361	283	352	154	353	415

Source: (Chibber and Petrocik 2002:62; Sridharan 2002:478)

In 1980 Congress attracted a broad base of support, both the very rich and the very poor, and remained the choice of India's minorities, the, Muslims and Christians, won 57 of the 79 constituencies reserved for scheduled castes, and 29 of the 37 reserved for tribals. The party won a majority of the vote in the Sikh dominated Punjab and won convincingly in both rural and urban areas. Congress was the only national party, winning a majority of parliamentary seats in all major states except Kerela and West Bengal. The Janata party

came closest to being a national opposition party, though came second to Congress in only nine seats. Congress won a majority in eight from the ten states contesting assembly elections[74]. The situation in 1984 was more of the same, except an even more striking victory for Congress, who won 415 of the 535 seats, with 49.6% of the vote, the largest ever majority in India.

This was not a restoration of the old Congress system. The features of the dominant party outlined by Kothari (1964) were conspicuous by their absence in the 1980s.

Congress in government had been restored by the 1980 and 1984 election victories but the party organisation was moribund. Corbridge and Harriss (2000) called the Congress in the 1980s 'dominance without authority'. The party had become increasingly centralised under Indira Gandhi between 1969 and 1975 with a corresponding decline in the party organisation. Weiner (1967) in field work of local Congress organisations showed how the party in the 1950s had an adaptive quality and was able to build alliances with the locally powerful and used patronage networks anchored by local notables, panchayat leaders, and caste elites. These areas were revisited by Kohli (1990), he found the Congress organisation at local level was defunct, its local offices closed, positions for leadership vacant and party meetings conspicuous by their absence. The taluka (district) Congress committees disappeared, there were no organisational elections at taluka or pradesh (state levels), or to the All-India-Congress-Committee (AICC). Elections had been an important motivation for leaders to bring in supportive factions, broadening their own support and in the process making Congress more inclusive. Office bearers even up to State Chief Ministers were appointees by the central leadership (Indira Gandhi) not chosen by the party or grass-roots. Efforts to reinvigorate inter-party democracy floundered under Rajiv Gandhi in the mid-1980s, as his national popularity waned and it became apparent that elections would risk giving his internal opponents a legitimacy and platform to oppose him. The authority and ability of Congress to mediate in local affairs had declined sharply. In Kheda (Gujarat) the decay of the party system in the 1970s into the 1980s left local parties unable to resolve the social conflict between the Patidars and

[74] The exceptions were Tamil Nadu and Kerala.

Kshatriyas, in Guntur (Andhra Pradesh) between Kammas and Reddis, in Belgaun (Karnataka) between the Lingayats and Kokkaligas, in Gujarat between the Patidars and Kshatriyas. Congress in the 1950s and early-1960s had incorporated all of these warring groups within 'the system'. Inside they were subject to its hierarchy, conflict management procedures and transactional negotiations. In Gujarat in 1985 riots erupted and despite having a huge majority in the state assembly the local Congress party and state government were unable to cope with minority agitation. The Patidars long most the important economically resented the loss of political power to the numerically dominant Kshatriyas and took to the streets to protest. Congress had ceased to be an institution of integration and groups mobilised outside its weakening formal political structures. This argues (Kohli 1990) helps to explain a number of political trends - coalitional instability, ineffective local government, and the emergence of personal rule. Intense and undisciplined factionalism has led to a difficulty in retaining power, the resort to populism and conflict shifting to street violence.

The 1950s Congress had been able to diffuse regional (language) tensions by negotiation and incorporation of the local level leadership, the state/ party was conspicuously unsuccessful at this in the 1980s. Rajiv on assuming office in 1984 re-opened negotiations with Sikh militants in the Punjab, and various factions involved in the disturbances in Assam. In both cases agreements were signed and conflict initially declined. In both cases the accords were not implemented, Congress did not possess the organisational machinery to implement at the local level agreements reached at the centre. Without a clear and hierarchical network of patronage the Congress leadership in New Delhi was isolated, instead of incorporation protest dissolved into popular agitation and extremist demands. In the Punjab efforts to work with the moderate leadership of the Akali Dal failed, the peace accord was not implemented, and ultimately dissolved when Congress proved unable to take action against its members who had been involved in the 1984 anti-Sikh riots in Delhi. Before long the Khalistan movement was again claiming several thousand lives a year. In Assam the government proved unable to remove the illegal immigrants that had motivated an anti-foreigner movement. Conflict continued unabated, Congress was unable to mediate or incorporate. Hindu-Muslim communal

clashes in Gujarat and the Gorkanaland agitation in West Bengal are other examples.

Congress won the national and state elections in 1980 and 1984 but proved unable to retain power, it lacked the organisation and networks of patronage to retain support. After 1980 Congress did badly in subsequent state elections, losing in Haryana, Kerela, West Bengal and Himachal Pradesh. After the 1984 victory, Congress began losing state elections, in the Punjab, Assam, Sikkim, Kerala, Andhra Pradesh (the Telugu Desam led by NTR), and by 1987 in Haryana the Hindi heartland of the Congress party. Dissenters regularly left the party to contest parliament either for opposition parties or for Congress breakaway factions. Ramakrishna Hegde a ex-Congress leader won Karnataka for the Janata pary in January 1983. Congress dissident Sharad Pawar became president of the Congress(S) in October 1981. Former Finance Minister V.P.Singh left the Congress and became Prime Minister in the National Front Government that took power nationally after elections in 1989.

6.2. Financing Public Investment

There was a very sharp increase in public investment, from 6.5% of GDP in 1974 to 10.1% of GDP in 1982/83 (table 7.11). The sharp increase despite recession in the early-1980s and the focus on key infrastructural sectors like power and transport was the key to the contemporaneous structural break in economic growth. This was similar to the increase in public investment between 1953/54 to 1964/65 (table 5.9). In the 1950s this was associated with a sharp rise in tax revenue (table 5.3), increased public sector savings (table 5.4), and a strict control over subsidies (table 5.5). Between 1979/80 and 1989/90 higher public investment was associated with a small rise in tax revenue (table 7.5), sharper increases in government current expenditure, and subsidies (table 7.5), a massive increase in the government fiscal deficit (table 7.6) and a sharp decline in public sector savings (table 7.7).

The Indian state was capable of boosting investment rates in the early-1980s, and initiating an episode of growth. The state did not have the institutions necessary to mobilise the necessary resources to pay for expansion and allocate the resulting burden.

Even groups excluded from development or suffering from rising levels of inequality may acquiesce in their own exclusion for ideological reasons. Woo-Cumings (1999) argues the authoritarian states of East Asia did not obtain their legitimacy through a mandate from civil society, or by following rules to gain office, rather by the project they were carrying out. Legitimacy was obtained by successfully achieving rapid economic development in an uncertain and dangerous cold-war world. A political party that can subordinate its members individual aspirations to a collective ideology, and exclude opponents can be an important institution to reduce conflict and facilitate economic reform. The rise of Rajiv to power was largely circumstantial and had nothing to do with a vision of economic reform or particular ideology. The 'Rajiv-Wave' was based on sympathy and dynastic sentiments, there was no ideological commitment to Rajiv's preferred economic policies. The massive parliamentary majority, 415 from 535 seats was an illusion.

6.3. Rent-seeking and the Growth of Rents

It was not simply a problem in allocating the burden of higher public investment that was faced by the Indian state in the 1980s. The explosion of rent-seeking that had occurred after the mid-1960s (Chapter VI) continued unabated. The state possessed no institution for identifying those requiring compensation, minimising the transaction costs associated with such transfers, and minimising rent-seeking by other entities.

Chapter VII argued that the droughts in 1965 and 1966 and humiliating reliance on the US for grain imports gave impetus to the Green Revolution. The shift focused on the application of new technology to those best able to make use of it and a shift to price incentives, both subsidised inputs and high(er)/ stable prices for output. This shift in

agricultural strategy enhanced the economic status of a group of capitalist orientated middle peasants in the north of India. Subsequently 'class-for-itself action' was pursued with 'relentless skill' as the economic strength of this class was translated into promoting class interests. This process continued into the 1980s. The Lok Dal, a northern agrarian based political party formed in 1969 formed a central role in the Janata coalition in 1977, its leader Charan Singh briefly becoming Finance Minister. The Lok Dal formed the second biggest party in the Lok Sabha with 41 seats after the 1980 general election. Agricultural interests continued to mobilise throughout the 1980s. Devi Lal became Chief Minister of Haryana, defeating the Congress in 1987 with a promise to right-off cooperative loans. In 1990 the World Bank estimated this policy cost $1.5bn. He became both Deputy Prime Minister and Agricultural Minister in the non-Congress governments between 1989 and 1991. In the autumn of 1989 a massive rally of farmers bore down on New Delhi to agitate for higher agricultural prices and subsidies.

The results of this rent-seeking were massive increases in rents to the agricultural sector. Subsidies that had begun to rise in the 1970s exploded in the 1980s. "If agitations broke out – as they did in Tamil Nadu (1970, 1972, and 1977), Punjab (1975 and 1985) and Uttar Pradesh (1986-7, 1988-9) – then more often than not, electricity and water tariffs which lie within the purview of state governments would be reduced." (Varshney 1998:140). Fertiliser subsidies increased from 0.39% of GDP in 1980/81 to 1.11% in 1989/90, and the share going to farmers rose from 24.54% in 1983/84 to 53.08% in 1989/90. Power subsidies to agriculture increased from Rs 4.10bn in 1980/81 to Rs 25.30bn in 1990/91. The cost recovery of power costs from agriculture fell from 43.99% in 1980/81 to 13.91% in 1990/91. In total input subsidies (power, fertiliser and irrigation) together accounted for 0.64% of GDP in 1980/81 and 2.46% in 1990/91. As a share of GDP in agriculture they increased from 1.8% in 1980/81 to 8.7% 1990/91. The increase in subsidies was directly related to the choking off of investment in agriculture, especially in irrigation (Gulati and Narayanan 2003:202). Government losses on operation of irrigation and subsidies increased after 1970 and dramatically so after 1980 (table 7.19).

Table 7.19: Budgetary Losses on Account of Operation of Government Irrigation Systems

Year	Operating Loss Rs m at 1970/71 prices	Area Irrigated by Canals (m ha.)	Net Sown Area (m ha.)	Implicit Subsidy per ha. of canal irrigated area	Implicit Subsidy per ha. of net sown area
1960/61	355.9	10.37	133.20	34.3	2.67
1970/71	1,370.2	12.84	140.78	106.7	9.73
1980/81	4,348.5	15.53	140.30	280.0	31.00
1982/83	5,228.4	15.37	141.77	340.2	36.88

Source: (Chakravarty 1987:127.

Public investments in agriculture fell from Rs75bn (1993/94 prices) in 1980/81 to Rs 50bn in 1990/91. By contrast subsidies to agriculture increased from Rs 37bn in 1980/81 to Rs 58bn in 1990/91. This shift of expenditure patterns was inefficient, subsidies did little to promote growth that was being directly undermined by reduced public investment (Shetty 1990; Kumar 1992; Dhawan 1996). In 1980 the remit of the Agricultural Price Commission was extended to include the agricultural-industrial terms of trade when recommending support prices for agricultural procurement. Hitherto support prices had been based only on input costs. Procurement prices increased by around 40% between 1976/77 to 1982/83 and became more akin to minimum prices rather than support prices.

Mundle and Govinda Rao (1991) find this growth of subsidies to be generalised. They attempt to measure the level and composition of subsidies for the central and fourteen state governments in 1987/88. They define government subsidies as the difference between the cost of delivering various publicly provided goods and services and recoveries arising from such deliveries. This is a broader definition from those frequently used and includes subsidies to households implicit in the provision of social and economic services below cost, non-recovered loans, and investments in non-departmental enterprises and co-ops. They found that only 32% of the cost of social and economic services provided by the state were recovered, giving a measure of subsidies of 15% of GDP. Visible subsidies accounted for only a little over a quarter of total subsidies.

Education alone accounted for 23% of all subsidies[75]. For agriculture, irrigation, and flood control only 20% of costs were recovered.

Chapter V showed that labour did not derive much benefit from growth between 1951 and 1965, indirect taxation was growing rapidly, real wages if anything declined, employment growth was slow and poverty remained little changed. Congress was successfully able to diffuse opposition from organised labour by incorporating the union movement within the party via an affiliated trade union congress (the INTUC) and pro-labour legislation. The number of strikes remained low until the mid-1960s, when they took off rapidly (table 6.15), this generated increased rents in the form of rapid rises in real wages (chapter VI). The labour movement progressively fragmented from the mid-1960s onwards, organisation at the apex fragmented splitting along ideological and party lines. The average membership of a union was only 710 in 1976 showing a clear long-term decline (Rudolph and Rudolph 1987:Ch10). Strike activity reached new peaks. The number of workdays lost rose from a localised peak of 30million in 1979, to a post-war record of 50million in 1984. Real wages in organised manufacturing and in the public sector increased by about 30% from the late-1970s to the early-1980s (Joshi and Little 1994:155).

6.4. Conflict and Industrial Policy

As a result of continuing political conflict from the mid-1960s onwards allocations of public resources increasingly went not to those capitalists or state enterprises able to make productive use of them, but instead to those that needed to be accommodated for the sake of political stability. Industrial policy remained a means of containing conflict rather than of economic planning. The possibility of monitoring and imposing discipline on capitalists and public sector enterprises was negligible. Producers were able to

[75] Student indiscipline continued at very high levels in the early-1980s. Reported incidents increased from a few hundred p.a in the 1950s and 1960s, to the thousands in the 1960s and 70s., to between 7-11,000 in the early-1980s.

cultivate alternative political patrons outside the Congress system. After which they were then protected from any investigation or censure about the use they made of the subsidised resources allocated to them.

Chapter V showed how growth in the 1950s was extensive in nature. Capital-intensive sectors such as steel, machine tools, motor vehicles and aluminium were set up with 1950s vintage technology through foreign collaboration. Growth was based on the horizontal diffusion of this technology and through indigenising production. There are few signs of learning in this process. Chapter V reviewed evidence to suggest this process of replication was efficient. In the 1980s expanded levels of public investment in infrastructure and power tackled what had hitherto been a major constraint on growth. Section 5.14 shows that some plants in the public sector rapidly increased capacity utilisation, others remained mired in inefficiency. There were some signs that higher capacity utilisation was behind higher levels of productivity and ICOR's declined during the 1980s. But there are few signs the incentives and opportunities generated by higher public investment were accompanied by discipline. There are also few if any signs of learning at these major industrial enterprises, expanded demand and public investment was allowing them to ignore other failings. Energy consumption per unit of output in steel plants was increasing over the 1980s, indicating growing inefficiency at plant level (table 7.16). Labour productivity at public sector steel plants was either stagnant or declining over the course of the 1980s (table 7.18).

6.5. The Sustainability of Growth, 1979/80 to 1991

Numerous authors have argued that growth in the 1980s was based on an unsustainable fiscal expansion (Joshi and Little 1994; Sachs et al 1999; Bajpai 2002; and Acharya 2002b). This generated growing levels of external debt and also squeezed the domestic banking system to the point of insolvency. In 1990/91 the gross fiscal deficit of the centre and states reached 10% of GDP. This was spilling over into a current account deficit, which increased from an annual average of $2.3bn during 1980-5 to $5.5bn

during 1985-90. Foreign savings reached only 2.4% of GDP on average during the 1980s (table 7.8). Capital inflows were not in the main responsible for financing the budget deficit that reached over 10% of GDP by the end of the 1980s. Even so the method of financing this capital inflow left the economy vulnerable. The real economy was doing well on the eve of crisis. In 1990 agricultural production was at a peak (good monsoon), industrial production was growing by over 8% and exports were doing well (Jalan 1992). India had been affected by shocks before but the short-term position in 1991 had never been so bad before. The debt service ratio (as a proportion of exports of goods and services) increased from 9.1% in 1980, 18.1% in 1984, and 26.3% in 1989. By the late-1980s almost the entire incremental deficit was financed from commercial borrowing. The ratio of short-term debt to foreign exchange reserves increased to 382% in 1991/92.

It was rather from domestic sources that higher public investment and current expenditure were both financed from. There was little change in the recourse to foreign financing, which remained at about 1% of GDP. Domestic borrowing by contrast increased from 2.7% of GDP in 1977/78 to 7.9% of GDP in 1989/90 (table 7.20).

Table 7.20: Financing of Public Investment, 1977/78 to 1989/90

				Public Sector Borrowing	
Year	Public GDCF	Gross Public Sector Savings	Total	Foreign	Domestic
1977/78	8.2	4.3	3.9	1.2	2.7
1978/79	9.5	4.6	4.9	0.8	4.1
1979/80	10.3	4.3	6.0	0.8	5.2
1980/81	8.7	3.4	5.3	1.2	4.1
1981/82	10.5	4.5	6.0	0.7	5.3
1982/83	11.3	4.4	6.9	1.0	5.9
1983/84	9.8	3.3	6.5	0.9	5.6
1984/85	10.8	3.8	8.0	1.4	6.6
1985/86	11.1	3.2	7.9	1.1	6.8
1986/87	11.7	2.7	9.0	1.6	7.4
1987/88	10.4	2.2	8.2	1.3	6.9

1988/89	9.9	2.0	7.9	1.3	6.6
1989/90	10.7	1.7	9.0	1.1	7.9

Source: (Joshi and Little 1994:306-7).

One of the key means by which this borrowing was squeezed out of the domestic economy was through pre-empting deposits from the (nationalised) domestic banking system. The Statutory Liquidity Ratio (SLR) specifies the proportion of their deposit liabilities that banks must invest in government securities, this ratio was raised from 34% in 1978/79 to 38.4% in 1990/91. The Cash Reserve Ratio (CRR) specifies the proportion of their deposit liabilities banks must hold in the form of cash, this was raised from 5% in the 1970s to 15% in 1991. The SLR had been raised to give government cheap access to credit, the CRR to control the secondary expansion of credit brought about by monetisation of the governments fiscal deficit. By 1991 more than half of banking sector deposits were being pre-empted by the government. The financial viability of the banking system was reaching limits by the late-1980s.

Chapter VIII: The Role of the State and the Episode of Growth in India, 1991 to 2004

1. Summary of Chapter Findings

This chapter is divided into four main parts, the first briefly summarises the episode of growth between 1991 and 2004, then reviews and critiques existing explanations for this episode of growth. The remainder of the chapter is divided into three parts, each focuses on one particular role that the state has in promoting economic development. The first two examine the potential economic (finance and production) roles of the state and the third the potential political role of the state (institutions).

The Indian state between 1991 and 2004 influenced five areas that were important in terms of mobilising and allocating the economic surplus. These were mobilising domestic savings, creating institutions to mobilise private sector savings, influencing retained earnings and profitability, allocating resources to projects essential for development and correcting market failures in the allocation of credit to small firms.

High levels of revenue expenditure and declining tax revenue led to a sharp fall in public sector savings over the 1990s. The state made substantial efforts to mobilise private sector savings through promoting the stock market. Savings rose while the market was booming in the early-1990s but the market has proved of little long-term benefit in mobilising or channelling resources to the corporate sector. A change in the nature of the state in the 1990s set the conditions that generated a dramatic rise in profitability of the corporate sector bringing with it increased private corporate sector savings and investment. The government sharply reduced public investment and liberalised the financial sector in the hope that the private sector would be enabled to take up the slack in investment. Private investment did increase rapidly in early-1990s. Though there is good evidence reviewed in this chapter to suggest that over the longer term the private

sector has not replaced the downgraded developmental role of the state. However, the fears that the reduction of directed credit programmes in the 1990s would starve the small-scale sector of lending have proved to be unfounded.

The state had an important role with regards to international capital. Despite an orthodox view which sees the build of up deficits over the 1980s as the cause of the 1991 crisis there was growth without sustained domestic macroeconomic adjustment during the 1990s. There was careful management by the state of the level and composition of capital inflows that made such inflows more sustainable and allowed the state to undertake liberalisation without stabilisation.

Neo-liberal theorists justify the need for liberalising economic reform by the promotion of economic efficiency. A strong prediction of neo-classical economics is that liberalisation will lead to a higher level of income through the more efficient allocation of resources. Trade liberalisation after 1991 raised the share of trade in GDP. As predicted by the theory of comparative advantage the evolution of the structure of trade over the 1990s has been in accordance with the broad predictions of comparative advantage – production and exports towards labour-intensive manufactured goods and imports towards everything else. Also techniques of production in Indian industry have generally become more labour-intensive. However the theory of comparative advantage is concerned with the *level* of income not long-term *growth* rates. The theory argues that liberalisation should increase the level of income, and generate a (transitional) period of faster economic growth. There is a good deal of evidence to suggest this is exactly what happened in India over the 1990s. There was a (temporary) boom in economic growth and investment until the mid-1990s, after which the growth rate dropped to its longer-term norm.

To analyse the implications for long-run growth we need to go beyond the theory of comparative advantage. In the long-run India could react to intensified competition by trying to enhance it price competitiveness within its existing labour-intensive niche by extending hours, reducing overheads (subcontracting) and intensifying work conditions (a

low road of competition). Secondly, a high road of competition could consist of remaining in an existing labour-intensive production niche and raising the productivity of labour (learning), or upgrading to a less (price) competitive market niche to capture rents. India's comparative advantage remains in low-tech, labour-intensive production and exports. There is broad supporting agreement that productivity (TFP) growth has declined over the reform relative to the pre-reform period. The software and textiles sectors illustrate more specifically the general point discussed in the empirical critique of comparative advantage. Both sectors have expanded rapidly in the reform period, in both production and exports, but remain stuck at the low end of the market.

The final section looks at the political-institutional role of policy change during the 1990s, in particular it will attempt to answer contradictions in the existing literature. There are three hypotheses discussed here to explain how the state was able to sustain the neo-liberal agenda. Firstly, that the state was able to repress those that opposed liberalisation. Secondly, the state was inclusive and able to identify and buy off those who opposed reforms. And thirdly, the state was able to incorporate people into its project through an ideological motive, even were they not gaining from reform. There are signs the dominant proprietary classes in India became more fragmented over the 1990s and that this made repression less necessary. There are various ways which Indian politics became more inclusive in the 1990s hence more amenable to support liberalisation. There was a revival of the national party system. Instead of the Congress as a dominant party a relatively stable two party system emerged between the Congress and BJP. Between 1991 and 1996 the fear of the BJP united numerous opposition movements behind the Congress; they voted for liberalisation for fear of the alternative. Finally between 1998 and 2004 the structure and organisation of the BJP was conducive to maintaining a cohesive and united party in government. The section dealing with ideology first shows that the rise of caste based politics weakened the kisan (farmers) movement by undermining its multi-caste/ multi-caste character. The growth of material rents to agriculture was replaced by ideological rents to the kisan lobby. Finally, this section will also show that the BJP is an ideological party and has retained the allegiance of supporters to a large extent because of their belief in the ideology of the party. This

kept a cap on rent-seeking for a time and allowed the party to pursue economic liberalisation without getting totally distracted by the task of buying off and co-opting opponents or the party fragmenting in opposition. The growth of political mobilisation according to caste led to striking political success for various parties in the north of India.

2. Recap from Chapter III: An Episode of Growth, 1991 to 2004

The Indian economy continued growing at a relatively rapid rate. After growth of only 3.13% during the period of stagnation (1951-65) the Indian economy expanded by 5.5% p.a. between 1980/81 and 1990/91, and by 5.87% between 1990/91 and 1999/00 (table 8.1).

Table 8.1: Source of GDP Growth in the Non-residential Sector, 1950/51 to 1999/00 (Contributions to GDP Growth in % Points)

	1950/51 to 1964/65	1964/65 to 1980/81	1980/81 to 1990/91	1990/91 to 1999/00
Non-Residential GDP	4.15	3.13	5.50	5.87
Labour Input	1.11	1.35	1.38	0.98
Capital Input	1.06	1.29	2.06	2.88
Total Factor Input	2.35	2.72	2.48	3.86
Output Per Unit of Input	1.80	0.41	2.02	2.01

Source: (Sivasubramonian 2004:291).

Chapter VII examined the debate about the upsurge in economic growth and productivity and argued it occurred in the late-1970s or early-1980s. Growth was sustained in the 1990s. It may be argued that the episode of growth ran from c1980 to 2004 and it is invalid to consider two periods separated in 1991. This is the approach followed by

(Rodrik and Subramanian, 2004:1) "Since 1980 its economic growth rate has more than doubled, rising from 1.7% (in per-capita terms) in 1950-80 to 3.8 percent in 1980-2000." There are certainly very striking similarities in the broad patterns of growth in 1980/81 to 1990/91 and 1990/91 to 1999/00 relative to earlier periods. In the latter two decades the rate of economic growth increased from just over three to over five percent. This was marked by a jump in both capital input and output per unit of input (table 8.1). The approach followed in *this thesis* is to separate these two episodes for a number of reasons. There is firstly a vast literature which assumes the 1991 reforms to be significant, 1991 marked "a fundamental transformation of India's economic strategy." (Varshney 1999:230). A large literature argues that growth in the 1980s, though rapid was unsustainable and the 1991 crisis was an inevitable outcome of growth in the 1980s (Panagariya 2004). The two periods though similar in many ways should be treated as separate episodes.

3. The (Economic) Role of the State, 1991 to 2004: Finance

This section examines the role of the state in mobilising and allocating the surplus.

The Indian state between 1991 and 2004 influenced five areas that were important in terms of the mobilisation and allocation of the economic surplus. These were mobilising domestic savings, creating institutions to mobilise private sector savings, influencing retained earnings and profitability allocating resources to projects essential for development and correcting market failures in the allocation of credit to small firms.

This section will show that the state was unsuccessful in mobilising resources directly through its own budget. High levels of revenue expenditure and declining tax revenue led to a very sharp fall in public sector savings over the 1990s. In terms of creating institutions to mobilise private sector savings the focus was on the stock market. The efforts of the state to promote the stock market proved successful in mobilising resources when it was booming in the early-1990s but have proved of little long-term benefit in

mobilising resources or channelling them to the corporate sector. A change in the nature of the state in the 1990s set the conditions that generated a dramatic rise in profitability of the corporate sector. This shift has a clear link with the growth of private corporate sector savings and investment.

The government sharply reduced public investment and liberalised the financial sector in the hope that the private sector would be enabled to allocate resources to those projects essential for long-run development. The rate of private investment did increase rapidly in the first half of the 1990s; this boom has obvious links to reforms of the financial sector. There is evidence to suggest the private sector over a longer-time period has not filled the downgraded developmental role of the state. There are four separate arguments here. The first, relates to the lack of diversification in the structure of investment in the 1990s, the second, to the temporary nature of the investment boom, the third, to the speculative nature of the investment boom in the early 1990s, and the fourth, to the emerging constraints on the ability of firms to access long-term developmental finance. The fears that the reduction of directed credit programmes in the 1990s would starve the small-scale sector of lending have proved to be unfounded.

The section looking at international capital shows that the state had a very important role. During the 1990s the state co-ordinated foreign borrowing, influenced the end use of foreign debt, controlled the disruptive potential of short-term capital flows, influenced the composition of capital inflows and segmented domestic and international capital markets. Over the 1990s there was no sustained domestic macroeconomic adjustment. The fiscal deficit remained high and by the end of the decade even exceeded the 1989/90-crisis level. There was very careful management by the state of the level and composition of capital inflows, they were restructured to make them more sustainable and allow the state leeway to continue running large budget deficits.

3.1. The Role of the State and the Mobilisation of Domestic (and foreign) Savings

The rate of gross domestic savings increased in the first few years of the reform period, from 22% in 1991/92 to a peak of 25.1% in 1995/96, thereafter stagnating between 21.5% and 24% of GDP (table 8.2).

Table 8.2: Gross Domestic Savings in India, 1991/92 to 2001/02

	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02
Gross Domestic Savings	22.0	21.8	22.5	24.8	25.1	23.2	23.1	21.5	24.1	23.4	24.0

Source: (IMF 2003:17).

The primary reason for stagnation of overall savings was the state's failure to mobilise public savings. Gross tax revenue of the central government steadily declined throughout the 1990s, from 10.1% of GDP in 1990/91 to a low of 8.3% in 1998/99, before recovering somewhat to 9.0% in 2000/01 (table 8.3).

Table 8.3: India: Central Government Tax Revenue, 1990/91 to 1997/98

	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01
Gross Tax Revenue	10.1	10.3	10.0	8.8	9.1	9.4	9.4	9.1	8.3	8.9	9.0
- Corporate Tax	0.9	1.2	1.2	1.2	1.4	1.4	1.4	1.3	1.4	1.6	1.7
- Income Tax	0.9	1.0	1.1	1.1	1.2	1.3	1.3	1.1	1.2	1.3	1.5
- Excise Taxes	4.3	4.3	4.1	3.7	3.7	3.4	3.3	3.2	3.1	3.2	3.3
- Customs Duties	3.6	3.4	3.2	2.6	2.6	3.0	3.1	2.6	2.3	2.5	2.3
- Other Taxes	0.3	0.4	0.4	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.2
VDIS	-	-	-	-	-	-	-	0.7	-	-	-
Less: States Share	2.6	2.6	2.7	2.6	2.5	2.5	2.6	2.9	2.2	2.3	2.5
Net Tax Revenue	7.6	7.7	7.2	6.2	6.7	6.9	6.8	6.3	6.0	6.6	6.6

Source: (IMF 2002:28).

Attempts to shift the burden of taxation from indirect to direct taxes and away from trade taxes was generally borne out in terms of revenue collection but proceeded at different rates, so undermined resource mobilisation. There were sharp and steady declines in the revenue from excise taxation (table 8.3), from 4.3% of GDP in 1990/91 to 3.3% of GDP in 2000/01 and customs duties, from 3.6% of GDP in 1990/91 to 2.3% in 2000/01. There was some rise in revenue from income tax, from 0.9% of GDP in 1990/91 to 1.5% in 2000/01, and corporation tax, from 0.9% of GDP in 1990/91 to 1.7% in 2000/01. The fall in customs and excise was steeper than the rise in direct tax leading to the decline in overall gross tax revenue by the central government. Financial liberalisation is estimated to have cost the state budget around 1% of GDP as a result of higher market interest rates on government securities (Pinto and Zahir 2004). The broad emphasis on tax reform during the 1990s was to provide incentives rather than raise revenue through cutting back on exemptions and widening the tax base.

Contrary to much discussion that suggests the central government shifted the burden of fiscal adjustment to the states there was little change in the states' share of central government revenue (table 8.3). The amount remitted to state governments by the centre remained around 2.5% of GDP throughout the 1990s.

At state level total revenue and grants declined from 12.2% of GDP in 1994/95 to 10.7% in 1999/00. Revenue from state taxes declined from 5.5% of GDP in 1994/95 to 5.3% in 1999/00, and non-tax revenue from 2.1% of GDP in 1994/95 to 1.5% in 1999/00 (table 8.4).

Table 8.4: India: Consolidated State Government Operations, 1994/95 to 1999/00

	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00
Total Revenue and Grants	12.2	11.7	11.3	11.4	10.4	10.7
- Share of Central	2.5	2.5	2.6	2.9	2.2	2.3

Government Revenue						
- States Taxes	5.5	5.4	5.2	5.4	5.3	5.3
- States Non-Tax Revenue	2.1	1.9	1.7	1.6	1.4	1.5
- Central Government Grants	2.0	1.9	1.8	1.5	1.5	1.6

Source: (IMF 2000:42; IMF 2002:141).

The second failure of the state relates to the utilisation of resources. There was a reduction in expenditure by the central government, from 19.66% of GDP in 1990/91 to 16.63% in 1997/98 (table 8.5). Thereafter expenditure rose between 1997/98 and 2000/01 by about 1.5% of GDP (IMF 2002:141). The rise in total expenditure cannot be accounted for by defence, interest and subsidies which had important impacts on government finances in other periods. Expenditure rose sharply during the mid-1960s, after the 1962 war with China and 1965 war with Pakistan. Subsidies rose sharply in the mid-1980s under the Congress-Rajiv government. In the 1990s however there was little change in aggregate expenditure on interest, defence and subsidies, from 8.78% of GDP in 1990/91 to 8.50% of GDP in 1997/98.

Table 8.5: Structure of Central Government Revenue and Expenditures

	1990/ 91	1991/ 92	1992/ 93	1993/ 9	1994/ 95	1995/ 96	1996/ 97	1997/ 98
Total Expenditure	19.66	18.06	17.38	17.71	17.00	16.23	16.15	16.63
Interest	4.01	4.31	4.41	4.59	4.66	4.55	4.67	4.65
Defence	2.88	2.65	2.49	2.73	2.46	2.44	2.36	2.55
Subsidies	1.79	1.59	1.33	1.34	1.22	1.10	1.14	1.30

Source: (Ahluwalia 1999:38).

The combined share of state and central expenditure declined steadily from 36.6% of GDP in 1990/91 to 32.3% in 1997/98 (table 8.6). Central Government expenditure fell from 19.6% of GDP in 1990/91 to 16.6% in 1997/98 then rose by about 1.5% of GDP between 1997/98 and 2000/01 (IMF 2002:140).

Total revenue expenditure was little changed over the 1990s, 27.3% of GDP in 1990/91 and 26.4% in 1997/98. Section 2.4 shows that the reduction in total expenditure was achieved through cuts in capital expenditure.

Table 8.6: State and Central Government Expenditure, 1990/91 to 1997/98

	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98
Total Expenditure	36.6	34.4	33.3	33.5	33.2	32.6	32.3	32.3
Central Government	19.6	18.1	17.4	17.7	17.0	16.7	15.7	16.6
State Government	17.0	16.3	15.9	15.8	16.2	15.9	16.6	15.7
Revenue Expenditure	27.3	27.3	26.7	27.2	26.9	26.6	26.9	26.4

Source: (Bajpai and Sachs 1999:85).

The most important implication of these trends is the general failure of fiscal adjustment in the 1990s. Expenditure adjustment was insufficient to offset declines in revenue and reduce the government budget deficit. The consolidated government fiscal deficit reached 10.5% of GDP in 1989/90, was reduced to 7.4% of GDP in 1992/93 then rose after 1993/94 to exceed 10% of GDP by the end of the decade (Bajpai and Sachs 1999:84; IMF 2001:74). This is quaintly known in the literature as 'fiscal slippage'. Public sector savings declined sharply from 2.0% of GDP in 1991/92 to –2.5% in 2001/02 (table 8.7).

Table 8.7: Public Sector Savings

	1991 /92	1992 /93	1993 /94	1994 /95	1995 /96	1996 /97	1997 /98	1998 /99	1999 /00	2000 /01	2001 /02
Public Sector	2.0	1.6	0.6	1.7	2.0	1.7	1.3	-1.0	-1.0	-2.3	-2.5

Source: (IMF 2003:17).

Between 1992/93 and 1996/97 the real interest rate averaged less than the growth rate of GDP. This allowed the ratio of central govt debt to GDP to fall despite primary deficits averaging over 2% of GDP. Total public debt as a share of GDP declined from 61.68% in 1990/91 to 56.29% in 1996/97 (Jha et al 2003:156). Between 1997/98 and 2001/02 the interest rate began to exceed the growth rate of GDP, and the primary deficit rose to an average of 3.5% of GDP. The combination by definition is unsustainable. Total public debt as a share of GDP then rose to 62.59% in 2000/01 (Jha et al 2003:156).

3.2. The Role of the State in Creating Institutions to Mobilise Private Sector Savings

3.2.1. Reforms and Outcomes in the 1990s: The Stock Market

The reform of the regulatory framework governing the stock market began in the late-1980s and was accelerated by a share-trading scam in 1992. Institutional reforms have included the abolition of capital issues control, bringing all primary and secondary market intermediates under the Securities and Exchange Board of India (SEBI), and new regulations relating to insider-dealing, electronic trading and takeover bids. Those related to the competitive conditions of trading have included, the free pricing of new issues, allowing foreign institutional investors to have access to the stock market[76], allowing Indian companies to list GDR's on foreign stock markets, and permitting NRI's to buy shares without RBI permission.

The most innovative example of government intervention was the establishment of a new Securities Exchange – the National Stock Exchange (NSE) (Shah and Thomas 2004). Until 1994 equity trading in India was dominated by floor-based trading on the Bombay Stock Exchange (BSE). Such trading was non-transparent, illiquid and access to stocks was limited for those outside of Bombay. The NSE was a pioneer among securities exchanges in the world in using a demutualised structure where a consortium of government owned financial institutions rather than brokerage owned it. The ownership

[76] Foreign institutional investors invested a cumulative $21bn between 1993 and 2000.

pattern removed incentives to restrict membership, new corporate and foreign brokerage firms were freely admitted. Trading commenced at the NSE in November 1994, from October 1995 it has been the largest exchange in India. The NSE pioneered many important innovations in market design in India. The most important was electronic trading (1994), a Clearing Corporation as a central counterparty (1996) and paperless settlement at the depository (1996). Competition between the NSE and BSE is unique, the exchanges operate in the same city during the same trading hours, all major stocks trade on both exchanges so the exchanges compete for order flow and not just for listings. The rise of the NSE has been a spur to reform at the BSE. The BSE subsequently started electronic trading and improved its rules governing the admission of corporate and foreign brokerage firms. The BSE has spread its reach and now uses satellite communications to reach locations outside Bombay.

In contrast to public sector savings (table 8.7) private sector savings increased from 20.1% of GDP to a peak of 23.2% in 1994/95, then stagnated until 1998/99 reaching 22.5% (table 8.8). The most important institutional innovation by the state relating to the mobilisation of private sector savings was promoting of the stock market. The expansion of the stock market in India during the 1990s was remarkable in terms of the number of companies listed, market capitalisation and value added. Some argue that the huge expansion of the stock market was not associated with either a rise in aggregate domestic savings or an increase in the proportion of financial savings and stock market growth in the 1980s only involved portfolio substitution by households and institutions from bank deposits to stock market instruments (Nagaraj 1996; Singh 1998; and Nagaishi 1999). In this spirit Muhleisen (1997) forecast that private sector savings would reach only 23.5% of GDP between 2000/01 and 2005/06 (from 23.2% in 1996/97).

Even as these pessimistic conclusions were being drawn the rate of private sector savings in India was set for a sharp jump, to 26.5% of GDP by 2001/02 (table 8.8). A surge in private sector savings from 17% of GDP in 1991/92 to 19.7% in 1994/95 was led by increases in both household and private corporate sector savings. Private corporate sector savings increased from 3.1% of GDP in 1991/92 to 4.9% of GDP in 1995/96 then

fluctuated at around 4% of GDP until 2001/02. The decline in household saving from 19.7% of GDP in 1994/95 to 17.0% in 1996/97 was the key to the overall stagnation analysed by Mehleisen (1997) and others. The rate then recovered rapidly, rising to 22.5% of GDP in 2001/02. This rise was strong enough to offset stagnation in private corporate sector savings, and falling public sector savings to raise aggregate savings to new heights.

Table 8.8: Savings by Source, 1993/4 to 1998/99 (% of GDP at market prices)

	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02
Private Sector	20.1	20.2	21.9	23.2	23.1	21.5	21.8	22.5	25.1	25.7	26.5
Household Saving	17.0	17.5	18.4	19.7	18.2	17.0	17.6	18.8	20.8	21.6	22.5
- Physical Saving	7.5	8.8	7.4	7.8	9.3	6.6	8.0	8.3	10.1	10.7	11.3
- Financial Saving	9.5	8.7	11.0	11.9	8.9	10.4	9.6	10.5	10.7	10.9	11.2
Corporate Saving	3.1	2.7	3.5	3.5	4.9	4.5	4.2	3.7	4.4	4.1	4.0

Source: (IMF 2003:17).

Examining the patterns of savings at a more disaggregated level reveal that for at least part of the decade the stock market *was* successful in mobilising financial savings from households. The rise in household sector savings during the first half of the 1990s was driven primarily by growth in financial savings, which increased from 9.5% of GDP in 1991/92 to 11.9% of GDP in 1994/95 (table 8.8). This occurred during the stock market boom. Stock market capitalisation increased from 19.4% of GDP in 1991/92 to 54.2% in 1992/93 and after a fall in 1993/94 to over 45% between 1994/95 and 1996/97, then declined to below 40% in 1997/98 and below 30% in 2001/02 (table 8.9). The finance ratio[77] improved to an average of nearly 40% between 1992/93 and 1995/96, from 31.7% between 1985/86 and 1991/92.

[77] The finance ratio is total financial issues by all sectors of the economy divided by Net National Product as current market prices (Saggar 2003).

Table 8.9: Financial Intermediation (% of GDP)

	1991 /92	1992 /93	1993 /94	1994 /95	1995 /96	1996 /97	1997 /98	1998 /99	1999 /00	2000 /01	2001 /02
Bank Deposits	39.1	40.2	40.3	41.8	40.2	41.0	44.2	46.4	48.1	52.3	54.7
Stock Market Capitalisation	19.4	54.2	30.6	46.6	46.7	48.2	35.7	38.7	33.0	47.1	29.7

Source: (IMF 2003:14).

There are signs towards the end of the 1990s that there was substitution by households and institutions from stock market instruments back into bank deposits as argued by (Mehleisen 1997; Singh 1998). Between 1996/97 and 2001/02 stock market capitalisation dropped from 48.2% to 29.7% of GDP and the share of bank deposits in GDP increased from 41% to 54.7% (table 8.9). The share of household financial saving going to shares and debentures increased from 10% in 1989/90 to a peak of 22.2% in 1991/92 then collapsed to 5% in 1995/96. Much of this movement is accounted for by savings through the Unit Trust of India (UTI) (table 8.10).

Table 8.10: Household Saving in Financial Assets (% of Gross Financial Saving)

	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96
Currency	15.6	11.0	11.5	8.7	14.2	11.6	13.1
Bank Deposits	32.3	30.8	31.9	40.1	35.7	45.8	43.6
Insurance/ Pension Funds	28.3	29.5	27.5	29.0	29.6	23.3	29.9
Claims on Governme nt	13.8	14.0	6.9	5.2	7.2	9.6	8.5
Shares and Debenture s	10.0	14.8	22.2	17.1	13.3	9.8	5.0
Of Which: UTI	4.4	6.0	12.8	7.4	4.8	1.8	-

Source: (Muhleisen 1997:10).

What is worrying is that increased private sector savings after the mid-1990s were led by growth in physical savings by households. The share of household financial savings remained stagnant at around 11% of GDP between 1996/97 and 2001/02. Physical savings by contrast boomed, from 6.6% of GDP in 1996/97 to 11.3% in 2001/02. This general picture is echoed by Khanna (2002) who found that investment in the stock market comprised approximately 10-18% of marginal savings of the household sector in 1990-94, and by the end of the decade only 3.5%. The state proved successful in mobilising resources through the stock market when it was booming in the early-1990s but has proved of little long-term benefit.

3.2.2. Retained Earnings and Profitability

This section will show that there was a sharp rise in profitability of the corporate sector. This has a clear link with the growth of private corporate sector savings and investment.

There has been little discussion exploring the link between profits, investment and economic growth. Rodrik and Subramanian (2004) briefly explore the link between economic reform in the 1980s and likely profitability of the corporate sector. They argued that reforms in the 1980s were pro-business rather than pro-market. There was less attention to external liberalisation and more to reducing taxes, easing access to imported capital inputs, and liberalising capacity restrictions. The pattern of reform they argue was about gaining favour from incumbent business interests rather than liberalising the economy as a whole. Athey and Laumas (1994) found profit to be a crucial influence on investment among large firms between 1978 and 1986. This they argue was due to the government policy of directed credit to small-firms which forced larger ones to increase reliance on internal funds.

The empirical evidence for India in the 1990s is fairly clear, a variety of studies have revealed a sharp increase in corporate profitability. The share of labour in net domestic

product was stable in the late-1980s at around 60%, after peaking at 60.16% in 1991/92 there was a sharp and continual fall to stable low of 50.11% in 1996/97 (table 8.11).

Table 8.11: Distribution of NDP by Factor Incomes (Current Prices)

Year	Labour, % Share in NDP Excluding Dwellings	Non-Labour, % Share in NDP Excluding Dwellings
1989/90	59.00	41.00
1990/91	59.59	40.41
1991/92	60.16	39.84
1992/93	61.60	38.40
1993/94	54.74	45.26
1994/95	52.16	47.84
1995/96	54.74	45.26
1996/97	50.11	49.89
1997/98	52.96	47.04
1998/99	51.67	48.33
1999/00	51.78	48.22

Source: (Sivasubramonian 2004:28).

Other evidence confirms this pattern. Uchikawa (2002:37) calculates the share of profits in gross income as the excess of net income over wages, deducting the rent and interest paid from net value added. The average share of profit and depreciation in gross income comparing two periods (1981/82 to 1990/91) and (1991/92 to 1997/98) increased from 37.3% to 40.3% in capital goods, 52.9% to 62.5% in intermediate goods, 40.9% to 52.5% in consumer durables and 38.3% to 51.5% in consumer non-durables. Balakrishnan and Babu (2003) find increased profit shares for the majority of industry groups. Basant (2000) notes that all indices of profitability declined in the first two years of economic reform but picked up thereafter, most significantly for the iron and steel, drugs and pharmaceuticals, and automobile sectors.

Profitability of the corporate sector has a clear link with the growth of private corporate sector savings (table 8.8) and as we shall see later in the chapter the growth of private corporate sector investment (table 8.15).

3.3. Allocating Resources to Projects Essential for Development

The second important financial role for the state was in allocating resources to projects essential for development. This section will show that the government sharply reduced public investment and liberalised the financial sector in the hope that the private sector would be enabled to allocate resources to those projects essential for long-run development. The rate of private investment did increase rapidly in the early-1990s. This boom has obvious links to financial sector reforms. There is evidence to suggest the private sector over a longer-time period has not replaced the downgraded developmental role of the state. There are four separate arguments here. The first relates to the lack of diversification in investment patterns in the 1990s, the second to the temporary nature of the investment boom, the third to the speculative nature of the investment boom, and the fourth to emerging constraints on the ability of firms to access long-term developmental finance. The fears that the reduction of directed credit programmes in the 1990s would starve the small-scale sector of lending though have proved to be unfounded.

Critics following work by McKinnon (1973) and Shaw (1973) characterised the Indian financial sector as repressed in 1991. Financial liberalisation they argued would lead to higher levels of investment and output growth via increased savings and the supply of domestic credit. Repression it was argued by Joshi and Little (1994) was harmful to resource mobilisation *and* efficient resource allocation. Liberalisation of the financial sector they argued would also enable the financial system to perform its role of allocating scarce resources more efficiently. During the 1990s the state retreated from regulating the financial sector and directly allocating resources (Khanna 1999; Ahluwalia 1999, 2002; Acharya 2002; Bajpai 2002; Williamson and Zagha 2002). This was observed first in the sharp cuts in public investment and also the substantial and ongoing liberalisation of the financial sector throughout the 1990s (table 9.14).

In 1991 public sector banks accounted for 90% of commercial bank deposits. Competition in the banking sector hitherto lacking increased. Nine new private banks

were opened between 1994 and 1995. The total number of foreign banks increased from 24 to 42 between 1991/92 and 2000/01 (IMF 2002:78). In 1991 all basic interest rates on loans and deposits were regulated (except for the inter-bank rate) with wide differentials depending on the size and sector. This administered structure was highly complex, rigid and not related to market conditions. By July 1991 63.5% of every increase in demand and time deposits had to be set-aside for investment in government securities. The Cash Reserve Ratio (CRR) then totalled 25% and the Statutory Liquidity Ratio (SLR) 38.5%. Of the remainder 40% was reserved for priority sectors such as the small-scale, agriculture and housing. Even this free proportion was subject to credit norms by sector, purpose, and security. Insurance companies had to hold half their portfolio in government funds. Reforms initiated in 1991 were justified as attempts to remove these microeconomic inefficiencies and allow a greater role for markets in the determination of interest rates and by extension the allocation of financial resources. In the banking sector the SLR has been reduced from high of 38% in 1991 to 25% by 1996. New income recognition norms based on international accounting standards have been gradually enforced resulting in several public sector banks showing large balance sheet losses. Public sector banks have been re-capitalised to ensure a capital-adequacy ratio of at least 8%, in practise the figure has rose towards 10%.

There is considerable evidence to show that the financial system did become more efficient over the 1990s. Abiad et al (2004) attempted to measure the impact of financial liberalisation on the efficiency of capital allocation. The removal of controls on lending they argue would permit credit to be re-allocated to firms offering higher returns. They show in a simple model that the variation in Tobin's q[78] should be lower in countries with more liberalised financial sectors. In a fully liberalised financial sector each firm faces the same market interest rate and can invest as much as it wants implying that marginal returns to capital are equalised across firms. In a non-liberalised financial system the government may impose price controls (interest rate ceilings etc) or quantity controls. Firms will still equate marginal returns to capital to the interest rate but firms facing

[78] Abiad et al (2004) note that we cannot use ex-post marginal returns, they may increase after liberalisation if a better functioning financial system leads firms to select higher-risk and higher-return projects.

higher interest rates will need to set a lower steady state level of capital. Greater variation in interest rates across firms will generate a variation in returns across firms. Abiad et al (2004) find that financial liberalisation in India has been more important than financial deepening[79] for improving allocative efficiency. Liberalisation in India has improved allocative efficiency through an effect on the quality not quantity of investment. Koeva (2003) finds that the banking sector in India has become more efficient over the 1990s when judged by conventional measures. The cost of financial intermediation and bank profitability has decreased in recent years. This Koeva argues is associated with greater competition following decreased industry concentration following the entry of new foreign and domestic banks. The market share of nationalised banks has declined by 6%.

Net non-performing loans of public sector banks had reached 16.3% at the end of 1992-3 (Ahluwalia 1999). There was a steady rise in capital-adequacy ratios and a decline in non-performing loans for both public and private sector banks during the latter half of the 1990s (table 8.12).

Table 8.12: Indicators of Financial System Soundness, 1995/96 to 200/01[80]

	1995/96	1996/97	1997/98	1998/99	1999/00	2000/02
CAR – Public Sector Banks	8.7	10	11.6	11.2	10.7	11.2
CAR – Private Domestic Sector Banks	-	12.8	12.7	11.9	12.9	11.8
NPL – Public Sector Banks	8.9	9.2	8.2	8.1	7.4	6.7
NPL – Private Domestic Sector Banks	4.3	5.4	5.3	7.4	5.4	5.4

Source: (IMF 2002:138).

[79] They measure financial liberalisation in terms of bank credit to the private sector relative to GDP, stock market capitalisation relative to GDP and stock market turnover relative to market capitalisation.
[80] Risk Weighted Capital Adequacy Ratio (CAR), Net Non-Performing Loans, % of outstanding net loans (NPL).

Gross investment increased quite sharply in the first few years of reform, from 22.6% of GDP in 1991/92 to 26.9% of GDP in 1995/96, then steadily declined to 23.7% of GDP in 2001/02. Public sector investment declined from 9.1% of GDP in 1991/92 to 6.7% of GDP in 2001/02 (table 8.13). The very high figure for public investment of 9.7% of GDP in 1994/95 proved to be only temporary exception.

Table 8.13: Saving and Investment, 1993/4 to 1998/99 (% of GDP at market prices)

	1991 /92	1992 /93	1993 /94	1994 /95	1995 /96	1996 /97	1997 /98	1998 /99	1999 /00	2000 /01	2001 /02
Gross Investment	22.6	23.6	23.1	26.0	26.9	24.5	24.6	22.6	25.2	24.0	23.7
Public Sector	9.1	8.5	9.0	9.7	7.8	7.9	7.2	6.9	7.4	6.8	6.7
Foreign Savings	0.3	1.7	0.4	1.0	1.7	1.2	1.4	1.0	1.0	0.5	-0.3

Source: (IMF 2003:17).

Despite declining public investment total private investment rose sharply from 13.5% in 1991/92 to 19.1% in 1995/96 (table 8.14). This more than compensated for the declining trend in public investment, leading to a steady rise in total investment, from 22.6% in 1991/92 to 26.9% in 1995/96. Disaggregating private sector investment reveals why this investment boom was so conducive to economic growth. Investment growth was led by the private corporate sector, where investment increased from 5.8% of GDP in 1991/91 to 9.7% of GDP in 1995/96.

Table 8.14: Investment, 1993/4 to 1998/99 (% of GDP at market prices)

	1991 /92	1992 /93	1993 /94	1994 /95	1995 /96	1996 /97	1997 /98	1998 /99	1999 /00	2000 /01	2001 /02
Gross Investment	22.6	23.6	23.1	26.0	26.9	24.5	24.6	22.6	25.2	24.0	23.7
- Private Sector	13.5	15.1	14.1	16.3	19.1	16.6	17.4	15.6	17.8	17.2	17.1
-- Corporate Sector	5.8	6.4	6.1	7.7	9.7	9.0	8.7	6.7	6.9	5.3	5.1
-- Household Sector	7.7	8.7	8.0	8.6	9.4	7.5	8.7	8.9	10.9	11.9	11.9

Source: (IMF 2003:17.

De Long and Summers (1991) find that the accumulation of machinery is a prime determinant of productivity growth. They find a 'clear, strong and robust' relationship between national rates of machinery and equipment investment and productivity growth. Lee (1995) finds that international trade has a positive relationship with growth because it provides access to cheaper foreign capital goods. De Long and Summers argue that the private return to equipment investment is below the social return, and that the social return is very high (over thirty percent they estimate). The boom in equipment investment that began in the 1980s continued during the 1990s (table 8.15). From an average growth rate of 0.52% between 1970/71 and 1980/81 to 12.52% between 1980/81 and 1990/91, and 9.59% p.a. between 1990/91 and 1999/00.

Table 8.15: Growth Rates of Non-Residential Fixed Capital Stock (1993/94 Prices)

	Net Fixed Capital Stock		
Period	Structures	Equipment	Total
1970/1 to 1980/1	5.27	0.52	4.50
1980/1 to 1990/91	3.41	12.52	5.06
1990/1 to 1999/00	4.48	9.59	6.00

Source: (Sivasubramonian 2004:149).

Financial sector reforms facilitated the growth of private corporate sector investment. The SLR declined from 38.5% in 1991 to 25% in 1998, and enabled financial institutions to expand disbursements (at 1981/82 prices) by 15.7% p.a. between 1991/91 and 1997/98 despite a rise in interest rates. The stock market boom contributed to this investment boom. The total amount of new capital issued by non-government public limited companies (including preference shares and debentures) at 1981/82 prices increased from Rs 2,927 crore in 1991/92 to Rs 8,525 in 1992/93 and Rs 16,417 in 1994/95.

This investment generated rapid growth for two reasons, firstly, it was concentrated in the private corporate sector and secondly it was focused on the most productive type of investment – equipment. However there is a good deal of evidence to suggest the state had undermined the *long-run* ability of the financial sector to allocate resources to projects essential for development. The private sector had not replaced the development role of the state. There are four separate arguments examined here.

The *first* argument relates to the lack of diversification in the structure of investment in the 1990s. There was no shift of investment to labour-intensive export-orientated industries. The boom in investment between 1991/92 and 1995/96 remained concentrated in the same small cluster of industrial sectors as it had done before liberalisation. Between 1991/92 and 1997/98 gross fixed capital formation of NIC 30 chemical, 31 rubber and plastic, 33 basic metal, 35-36 machinery, 37 transport equipment rose rapidly. These five main investing industries accounted for 63.6% of total investment, barely changed from 64.4% in the 1980s. A shift in the concentration of investment did not happen.

The *second* argument relates to the temporary nature of the investment boom between 1991/92 to 1995/96. Total gross investment fell after 1995/96 and stagnated for the rest of the decade, beginning at a level in 2001/02 (23.7%) little different from its level in 1991/92 (22.6%). Most strikingly there was a dramatic shift in the pattern of private sector investment. After 1995/96 private corporate sector investment dropped sharply downwards, falling from 9.7% of GDP in 1995/96 to only 5.1% of GDP in 2001/02, below the level attained in 1991/92 (5.8%). Private household sector investment continued a steady rise throughout the 1990s finishing in 2001/02 at 11.9% of GDP.

The *third* argument relates to the speculative nature of the investment boom. A relevant hypothesis is that liberalisation of international trade can reduce the relative price of capital goods and this can stimulate an investment boom. There is however no clear link between changes in the prices of capital goods and sectors that subsequently invested rapidly (NIC 30, 31, 33, 35-6 and 37). Uchikawa (2001) finds a decline in the relative

price of capital goods in NIC 33, and 35-36 and an increase in NIC 30, 31 and 37. Rather than being related to fundamental changes in incentives and prices generated by liberalisation or to changing patterns of demand the boom in investment was essentially speculative in nature. The splurge in private corporate sector investment generated sharp declines in capacity utilisation after 1995/96. Underutilisation made appearance in chemical, rubber and plastic, machinery and transport equipment after output growth slowed in the mid-1990s. These trends are confirmed by figures on growth rates of capital and labour productivity which both declined in NIC 30, 31, 35-6, 37.

The *fourth* relates to the argument that reforms of the financial sector did not enhance the long-run capacity of the financial sector to allocate resources to projects essential for development. By March 1995 the incremental SLR was down to 25% and the average to 29%. This reduction was achieved in tandem with the government paying market-determined rates on its borrowing. Market borrowing as a share of total financing of the government deficit increased from 21.3% in 1990/91 to 51.1% in 1993/94. Market borrowing by government in the form of 182-364 day T-Bills increased from 0.8% of total capital receipts in 1990/91 to 30.1% in 1994/95 (Sen and Vaidya 1997). The access of state owned developmental financial institutions to cheap SLR funds was cut off. The DFI's had traditionally been the most important source of long-term borrowing for firms. The two largest are the Industrial Development Bank of India (IDBI) and the Industrial Credit and Investment Corporation of India (ICICI). Prior to reforms the government provided subsidised credit to the DFI's which was then lent out at a fixed rate of interest to those firms who had acquired a license to create/ expand capacity. DFIs have always lacked a retail network to collect deposits from households (which provide 80% of domestic savings in India) and in a liberalised financial system were now forced to raise capital through the sale of bonds and debt instruments at very high rates of interest (16-18%)[81]. The disruption of financing to the DFI's has had a serious impact on the corporate sector. DFI's remain the only institutions with capabilities to assess long-term projects. There has been a marked decline in credit from DFI's to the corporate sector.

[81] Khanna (2002) finds no evidence the cost of capital to Indian firms has declined due to the entry of foreign investors to the stock market.

DFI's used to provide about 22-24% of finance to large Indian firms at the beginning of the 1990s. In the first few years of reforms DFI lending declined to about 6% of new investment. Despite financial liberalisation the overall proportion of funds raised internally increased from 30 to 37% during the 1990s (Khanna 2002).

Total government debt held by banks actually absorbed a higher percentage of deposits in the 1990s (40%) than in the latter half of the 1980s (36%). Private sector banks are holding more government debt that is required by the SLR. The government pays a higher interest rate than the average interest cost of funds and public sector debt carries a low risk weight for the purposes of capital adequacy (2%). There is other evidence the banking sector is becoming more short-termist. The share of aggregate long-term debt fell from 90% of the total in 1989 to 70% in 2002 (Topalova 2004).

3.4. Correcting Market Failures in the Allocation of Credit to Small Firms

In the presence of transaction costs or information asymmetries there are reasons to believe that the supply of credit to small firms will be inelastic. If targeted firms are facing an inelastic or rationed source of funds directed credit can be effective. External equity is subject to agency costs associated with the verification of firm performance. Legal systems in LDC's may make verification more difficult and there are likely to be scale economies in verification. This may lead to a situation in which only large firms are able to access funds from private sector capital markets. Directed credit in India after banking sector nationalisation in 1969 did see a rapid shift of credit to the small-scale sector. The volume of bank credit doubled between 1965 and 1978. The share of the small-scale in this (higher) total increased from 3.5 to 11%. Eastwood and Kohli (1999) find that in the 1960s and 1970s the supply of external finance was exogenous to the investment demand of small firms in India while large firms with new investment opportunities were able to obtain external finance at the margin. The policy of directed credit after the late-1960s they argue had enabled gross investment in small firms to overcome capital market failures.

Continued priority allocation of credit to the small-scale sector has protected them from a credit crunch resulting from liberalisation in the 1990s. The share of bank lending going to the small-scale sector was stable throughout the 1990s. This is true whether we look at the State Bank of India (SBI), loss making or profitable banks (table 8.16). The small-scale sector has also been shielded in other ways, notably the government owned Small Industries Development Bank of India (SIDBI) being set up in 1990 and lending at below market rates to the small-scale sector (Sen and Vaidya 1997).

Table 8.16: Priority Sector Lending, 1991/92 to 1996/97[82]

	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97
All Public Sector Banks	29.6	28.6	30.9	29.3	29.6	31.1
SBI and Associates	26.6	25.3	28.9	27.3	27.4	29.2
Weak Banks	31.9	30.4	32.8	31.0	31.3	34.7
Strong Banks	32.2	32.0	32.4	32.0	33.6	34.0

Source: (IMF 1998:110).

3.5. The Role of the State and International Capital

This section will show that the state had a very important role with respect to international capital and fulfilled all the necessary theoretical roles that were outlined in chapter IV. During the 1990s the state co-ordinated foreign borrowing, influenced the end use of foreign debt, controlled the disruptive potential of short-term capital flows, influenced the composition of capital inflows and continued to segment domestic and international capital markets. The fiscal deficit remained high throughout the 1990s, by

[82] Weak banks are defined as those having incurred losses in three of the past four years, and strong banks as those having experienced no losses in last five years (there are five banks in each category) (IMF 1998:107).

the end of the decade it even exceeded the 1989/90-crisis level. The state though carefully restructured capital inflows in a way that made them more sustainable and allowed itself the leeway to continue running large budget deficits.

3.5.1 . The orthodox view: Stabilisation...

Many commentators argue the origins of the 1991 crisis lay in the fiscal laxity and foreign borrowing during the 1980s. Joshi and Little (1994:Ch7) call the period 1984/85 to 1991, 'the road to crisis'. The state fiscal deficit reached 10.5% of GDP in 1989/90. Especially after 1984/5 large current account deficits were financed by commercial borrowings, such as (subsidised) NRI deposits. Total external debt rose from $18.7bn in 1980 to $56.3bn in 1989, or from 11 to 21.5% of GNP. The debt service ratio (as a proportion of exports of goods and services) increased from 9.1% in 1980 to 26.3% in 1989. In September 1990, inflows of NRI deposits turned negative, foreign exchange reserves dipped below $1bn in Jan 1991. By June 1991 the balance of payments crisis had become a crisis of confidence in the government's ability to manage the external sector, default became a distinct possibility.

Various authors have noted that stabilisation can have severely negative implications. Devaluation can be deflationary (Krugman and Taylor 1978), stabilisation can lead to economic collapse (Taylor 1978) or 'overkill' (Dell 1982), cuts in social-expenditure can undermine accumulation of human capital vital to sustain growth in the long-run (Ranis and Stewart 1999). The orthodox story finds the period of stabilisation to have been, contrary to such doomsayers a very successful one (Ahluwalia (1999). In November 1991 the government of India agreed a two-year stand by arrangement with the IMF totalling $2.3bn. Inflation fell from 13.7% in 1991/92 to 8.4% in 1993/94. Growth remained positive, 0.8% in 1991/92, 5.3% in 1992/93 and 6.2% in 1993/94. Acharya (2002b) argues this marked one of the swiftest recoveries of economic dynamism seen anywhere in the world in the last twenty years. Real manufacturing growth averaged 11.3% between 1993/94 and 1996/97, exports in dollar terms averaged 20% between

1993/94 and 1995/95, and real fixed investment rose by nearly 40% between 1993/94 and 1995/96. The fiscal deficit at the centre was reduced quite quickly between 1990/91 and 1991/92. For Virmani (2003) this was a classic textbook macroeconomic response to an external crisis - a combination of expenditure compression through sharp fiscal adjustment and expenditure switching through devaluation. According to the orthodox view a sharp devaluation had expenditure-switching effects that quickly offset the contractionary effects of fiscal tightening.

3.5.2. The alternative view: Expansionary Adjustment

A closer look at the data show there was no sustained domestic macroeconomic adjustment. The fiscal deficit remained high throughout the 1990s eventually exceeding the 1989/90-crisis level. The orthodox story of macroeconomic adjustment is mistaken.

The state continued to restrict commercial borrowing in foreign currencies and maintained annual ceilings on the size of and interest rates on loans sought by domestic firms. The approval process gave priority to longer term loans and loans to priority sectors, it paid attention to the maturity structure and end-use of proposed loans. An easy interpretation would be that provided by Sen (2003) who noted that India has not achieved the pre-requisites for full convertibility (financial sector reforms, fiscal balance and a properly designed monetary and fiscal policy). The argument here is very different. The state restructured capital inflows in such a way that was more sustainable and allowed the state leeway to continue running large budget deficits and so avoid deflation. The effectiveness of external reforms was demonstrated by the ease with which the economy weathered the Asian crisis and 1998 nuclear related sanctions. The macroeconomic experience of India in the 1990s was in effect just the sort of expansionary adjustment in the face of an external loss of confidence that the IMF was much maligned for preventing in the aftermath of the 1997/98 Asian crisis (Wade 1998b; Kaplan and Rodrik 2001; Stiglitz 2002) etc.

The level of capital inflows changed relatively little during the 1990s. Total capital inflow fell from $7,056bn in 1990/91 to a low of $3,876bn in 1992/93, they recovered quite rapidly to average around about $9-10,000bn for the rest of the decade. The biggest change has been in the composition of capital inflows. Except for NRIs there was a near absence of any private capital flows until 1992. Until 1991 official external assistance, grants and loans from bilateral sources comprised 75-80% of such inflows, this fell to below 5% by the late 1990s. In 1990/91 debt creating inflows comprised 83% of total inflows. Among these, external assistance (31.3%), external commercial borrowing (31.9%), short-term credit (15.2%) and NRI dollar deposits (21.8%) formed significant categories. Non-debt –creating inflows formed only 1.5% of total capital inflows. There was a sharp rise in non-debt-creating inflows during the 1990s. FDI rose from 1.4% of total capital inflows in 1990/91, to a peak of 52.4% in 1995/96, then stagnated somewhat but remaining above 25% for the rest of the decade. Portfolio investment rose from 0.1% of total capital inflows in 1990/91, to a peak of 65.1% in 1995/96, and levelled off to 30.6% in 2000/01. The surplus on the capital account of 2.5% GDP between 1996/7 and 1998/9 was more than necessary to neutralise the deficit on the current account leading to a growth of foreign exchange reserves.

The government's cautious policy to debt flows importantly included tight controls on short-term borrowing. The short-term debt to reserve ratio declined from nearly 80% in 1991/92 to about 15% in 1998/99 (IMF 2000:85). By March 2001 short-term debt was less than 9% of foreign currency reserves. Foreign exchange reserves increased rapidly, the ratios of M3/forex reserves and short-term debt/ foreign exchange reserves declined rapidly (table 8.17).

Table 8.17: Key Macroeconomic Indicators

% of GDP (Unless otherwise defined)	Pre-crisis (1985/96 to 1989/90)	Crisis 1990/91	1992/93 to 1996/97	1997/98 to 2001/02
Forex Reserves ($bn)	4.0	5.8	26.4	54.0

M3/forex Reserves %	3694	2329	733	568
Short-term external debt[83]/ Forex reserves %	365	276	33	16

Source: (Pinto and Zahir 2004:1040).

4. The (Economic) Role of the State, 1991 to 2004: Production

This section starts by arguing that Neo-liberal theorists justify the need for liberalising economic reform to promote economic efficiency. A strong prediction of neo-classical economics is that trade liberalisation will raise incomes through the more efficient allocation of resources. The liberalisation of the Indian economy after 1991 indeed raised the share of trade in GDP. The evolution of the structure of trade over the 1990s has been in accordance with the broad predictions of comparative advantage – production and exports towards labour-intensive manufactured goods and imports towards everything else. Techniques of production in Indian industry have generally become more labour-intensive. The theory of comparative advantage argues that liberalisation should increase the level of income, and generate a transitional period of faster economic growth. There is a good deal of evidence to suggest this is exactly what happened over the 1990s. There was a temporary boom in economic growth until the mid-1990s as output was re-allocated to labour-intensive sectors, after which the growth rate dropped to its longer-term norm.

To analyse the implications for long-run growth we need to go beyond the theory of comparative advantage. In the long-run trade liberalisation and increased market competition could lead to two very different outcomes, both could be judged 'efficient' according to the neo-classical definition of efficiency. These are the low and high-roads of economic development. Firstly, India could react to intensified competition by trying to enhance its price competitiveness within its existing labour-intensive niche by extending hours, reducing overheads (subcontracting) and intensifying work conditions (a

low road of competition). Secondly, India could remain with labour-intensive production and raising the productivity of labour (intensive growth), or upgrading to a less (price) competitive market niche to capture rents (a high road of competition).

In practise India's comparative advantage remains in low-technology, labour-intensive production and exports. There is broad agreement that productivity (TFP) growth has declined over the reform relative to the pre-reform period. The software and textiles sectors illustrate more specifically this general point.

4.1. Neo-classical Analysis of Efficiency and Sustainability

Neo-liberal arguments for liberalisation take as their benchmark efficiency judged and measured in a neo-classical sense. Government intervention in the allocation of resources they argue will create inefficiency and the catch-all solution to enhance efficiency they argue is (more) liberalisation. This neo-classical concept of efficiency is extremely narrow and is entirely subsumed by the concept of Pareto efficiency. Efficiency is held to be solely a static concept concerned with the efficient level of output of public and private goods, efficient risk sharing, the Edgeworth Box, and Walrasian equilibrium[84]. There are "three types of efficiency embodied in a Pareto optimal exercise" (Mas-Colell 1995:564). The first is *consumption efficiency*, where consumers have allocated their budgets to maximise their own wellbeing (utility maximisation), and the marginal rate of substitution between any two goods equals their price ratio. The second is *production efficiency*, where producers cannot alter the ratio of inputs to raise output or reduce the cost of a given volume of production and the marginal rate of technical substitution between any two inputs equals their price ratio. The final is *aggregate output efficiency*, where resources are allocated simultaneously to achieve both production and consumption efficiency. Where for example in a society of bipeds an

[83] External debt with original maturity less than a year plus long-term debt falling due over the next year.
[84] In Mas-Colell (1995) efficiency gets six entries in the index, the Pareto concept appears 76 times. Kreps doesn't bother to separate them, "Efficiency, see Pareto efficiency" (1990:824) notes the index, Pareto

equal number of right and left shoes are produced. According to neo-classical theory utility and profit maximisation will ensure consumption efficiency and the efficient use of inputs and composition of outputs.

The underlying assumptions of voluntary exchange and rational optimising individuals mean that it must by definition be the case that growth reflects individual preferences and hence maximises welfare in a free market. Accordingly the concept of sustainability in neo-classical analysis is severely emasculated. Sustainability refers usually only to a financial concept – fiscal and trade deficits. The successful outcome of reform and the degree of implementation of liberalisation are collapsed by a-priori assumption into the same meaning. Neo-Classical analysis typically focuses nearly exclusively on the depth, pace and implementation of reforms (Ahluwalia 2002; Bajpai 2002).

4.2. Comparative Advantage

This section discusses the theory of comparative advantage and shows that its theoretical predictions were largely borne out in the case of India. The implications for sustainable growth are explored in some detail. A strong prediction of neo-classical economics is that trade liberalisation will lead to a shift in the structure of trade and production to reflect comparative advantage. Secondly, that this shift will lead to a transitional period of faster economic growth. There is good evidence that this occurred in the Indian economy after 1991.

The external sector in India has been substantially liberalised during the 1990s. India experienced an exchange rate depreciation between 1990 and 1993 of 60% (Sen 2003; Krueger and Chinoy 2004). Since 1993 the real exchange rate between the dollar and rupee has been approximately constant when measured in terms of consumer prices and slightly depreciating (less than 5%) when measured in wholesale prices. Against a basket

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efficiency in its various forms appears 26 times. Also in Varian efficiency appears only as Pareto efficiency (1992:225). The nearest to an exception is repeated games (Game Theory).

of six East-Asian countries[85] the rupee depreciated substantially until the mid-1990s. The import-weighted average economy-wide tariff fell from 87% in 1990/91 to about 30.2% in 1999/00, in agriculture from 70 to 17.7%, in consumer goods from 164 to 32.4%, in intermediate goods from 117 to 31.9%, and in capital goods from 97% to 32.2%. The weighted-average coverage ratio for economy-wide non-Tariff tarriers on Indian imports has fallen from over 95% in 1988/89 to less than 25% in 1999/00 (Pandey 2004). The opening of the economy to international trade after 1990 raised the share of trade in GDP. There was a sharp break in both imports and exports as a proportion of GDP in the 1990s. Imports as a share of GDP increased from 8.57% to 10.65 between the 1980s and 90s and exports from 5.54% to 9.08% over the same period (table 8.18). Merchandise trade averaged 12.6% of the GDP in the 1980s and increased significantly to an average of 20% in the post-crisis period (Virmani 2003). Trade exposure increased from 15% in 1989/90 to 23% in 1995/96 (Ghemawat and Patibandla 1999).

Table 8.18: The Ratio of Merchandise Trade to non-residential GDP, 1950/51 to 1999/00 (Current Prices).

Period	Imports as a % of GDP	Exports as a % of GDP	Average Trade to GDP Ratio
1950/1 to 1960/1	7.82	5.84	6.83
1960/1 to 1970/1	6.27	4.03	5.15
1970/1 to 1980/1	6.58	5.30	5.94
1980/1 to 1990/1	8.57	5.54	7.05
1990/1 to 1999/00	10.65	9.08	9.86
1950/1 to 1999/00	7.95	5.96	6.95

Source: (Sivasubramonian 2004:261).

Mayer and Wood find empirical support for the theory of comparative advantage among a broad cross-section of countries, "differences among countries and regions in the broad features of their export structure are the result mainly of differences in their supplies of human and natural resources" (Mayer and Wood 2000:3). Specifically for the case of India, Wood and Calandrino (2000) note that India has one square kilometre of land per

[85] Indonesia, Malaysia, Philippines, South Korea, Singapore and Thailand.

100 workers which is similar to other south and East Asian countries and less than Latin America or Africa (six and ten respectively). This low ratio gives India a theorised comparative advantage in manufactured rather than primary exports. In 1990 a low level of schooling (average of four years compared to over eight years in developed countries) caused this comparative advantage in the manufacturing sector to be specifically in low-skill labour-intensive items.

The mutual effects of trade liberalisation and greater trade exposure after 1991 generate two strong predictions. According to the theory of comparative advantage we should observe a shift in the structure of exports to manufactured goods and an increase in the labour-intensity of exports. The opposite pattern should occur in the structure of imports. There are four main pieces of evidence that support these theoretical predictions in India after 1991.

Firstly, the pessimistic forecasts that trade liberalisation would lead to deindustrialisation are largely misplaced. This is in stark contrast to the argument of Wood and Calandrino (2000) that India in 1990 had a comparative advantage in labour-intensive manufactures. After a steady increase in the manufacturing share of GDP, from 14% in 1970/71 to 21% in 1990/91 it has remained constant in the latter half of the 1990s (Nambiar et al 1999). However, the share of manufacturing in total non-agricultural employment declined from 29% in 1970/71 to 24% in 1995/96. Manufactured imports have registered a consistent rise, from 2% of total GDP in 1970/71 to 10% 1995/96. Net manufacturing imports as a proportion of manufacturing GDP has increased from negative 0.5% in 1970/71 to 16.7% 1995/6. At first glance this may look like deindustrialisation but these figures hide an important shift in the structure of production and trade. It is not a process of deindustrialisation that has occurred, rather a shift in the structure of industrial output.

Secondly, between 1978/9 and 1989/90 India's manufacturing export basket contained nearly 50% of intermediate and capital goods. The structure of *exports* subsequently shifted towards one dominated by (labour-intensive) consumer goods. The share of consumer goods in India's manufacturing exports increased from 50.6% in 1989/90 to

72.5% 1996/97, over the same period the share of intermediate goods declined from 38.5% to 12.6%. The share of labour-intensive exports in total manufactured exports increased from 13% 1991/2 to 34% 1996/7. The share of resource-intensive exports in total manufacturing exports declined from 68% in 1978/9 to 37% in 1996/7[86]. The proportion of capital goods in total manufacturing *imports* increased from 36.6% in 1978/9 to a high of 62% in 1996/7. Between 1987-90 and 1993/96 labour and scale-intensive exports from India increased their share of total exports, while the share of differentiated and science based exports declined. In China by contrast the pattern was the reverse (Tendulkar 2000:39-40). Manufactured exports responded well to reform averaging of 60.7% of total exports in the 1980s and 76.1% of total exports after the crisis. The ratio of manufactured exports to GDP in registered manufacturing more than doubled from a pre-crisis average of 6.4% to a post-crisis average of 13.2%.

Thirdly, the pattern of growth within the manufacturing sector is broadly in accordance with that predicted by the theory of comparative advantage. The low skill intensive sector[87] has witnessed a rise, both in value added and employment from 36% to 60% and 37% to 82% respectively (Nambiar et al 1999). There has been a corresponding fall in the shares of both medium and high-skill-intensive sectors. Within the manufacturing sector growth fell most sharply in the capital goods sector relative to earlier periods. Between 1960 and 1965/66 25.63% of the growth of net value added by the registered manufacturing sector was contributed by capital goods and 5% by consumer durables. This was an obvious consequence of the initial planning strategy. Between 1990/91 and 1997/98 more than half of the growth of manufacturing was accounted for by consumer goods, and capital goods only a little over 10%.

Fourthly, techniques of production in Indian industry have generally become more labour-intensive over the 1990s. The share of casual workers in large factory employment rose from 4.6% in 1980/81 to more than 12% in 1993/94. The mechanism

[86] An exception is the increase in the share of high-tech exports from 13% in 1978/9 to 31% in 1991/2 and 25% 1996/7. This high figure is due to software exports that are analysed separately in a later section.

has often been increased use of sub-contracting. Subcontracting practises have been largely concentrated in already labour-intensive industries, and more frequent in industries producing consumer non-durables and in industries with plants below median size. The use of contract labour has shown the largest increase in, beverages and tobacco and non-metallic mineral industries and is increasing in new industries like food products and chemicals.

There is good evidence to suggest that the allocation of resources was becoming more efficient (by its own definition), the structure of production and exports was becoming more labour-intensive. However, neo-classical analysis stops here. Going beyond the very narrow neo-classical analysis there are numerous strands to the debate about the sustainability of growth. This debate has turned on two areas, the first whether this pattern of growth can be sustained, the second (with much less attention) to long-term issues of legitimacy. In terms of sustainability the debate has revolved around competitiveness (Kathuria 1999), the alleged deflationary bias to macroeconomic policy (Patnaik 1999), deindustrialisation (Nambiar et al 1999), increasing dependence of growth on the service sector (Acharya 2002b) and the non-dynamic structure of exports (Lall 1999). The discussion of long-term issues of legitimacy are few and far between, whether the social polarisation some argue has occurred during the 1990s is sustainable (Nagaraj 2000) and the potential strains that may be generated in a federal system by growing inter-state inequalities (Weiner 1999).

4.3. Faster Growth or a New Level of Income?

The second proposition of the theory of comparative advantage – a higher level of income – is borne out by the data. There was a (temporary) boom in growth until the mid-1990s as resources were being re-allocated to labour-intensive sectors, after which the growth rate dropped to its longer-term norm.

[87] Nambiar et al (1999) use ASI data on 'total persons engaged', their proxy for skilled workers is found by subtracting workers from total persons engaged to obtain the managerial and technical staff employed by

Growth in the first half of the 1990s (1992/93 to 1997/98) increased to 6.5% compared to 5.8% for the second half of 1980s. This average hides an accelerating trend of industrial growth between 1992/93 and 1995/96 (4.4%, 6.9%, 9.3%, and 12.7%). Economic growth reached a rate of over 7% in 1994/95, 1995/96 and 1996/97 then fell to 5.0% in 1997/98. This boom was led by rapid industrial growth of 9.2% in 1994/95 and 11.8% in 1995/96, and service sector growth of 7% in 1994/95 and 11.8% in 1995/96. During 1997/98 agriculture experienced negative (-1.9%) growth and GDP growth slowed to 5%. GDP growth revived to 6.8% in 1998/99 though this was led by a sharp (cyclical) increase in agricultural growth of 7.2%. Industrial growth dropped sharply after 1997 growing by 5.9% in 1997/98, 4.0% in 1998/99 and 6.9% in 1999/00 (IMF 2000:17). Growth was sustained by a temporary recovery in industry 1999/00, but by 2000/01 there was a renewed industrial deceleration and virtual stagnation in agriculture, growth again fell to only 4%. Export growth in dollar terms fell from 20% p.a. in 1995/96 to 5% in 1996/7. There was a renewed wave of optimism in 2003 as growth soared to 8.5%. This burst of growth was led by a boom in agriculture, where output increased by 9.1% over the year. The economy was not entering a new higher growth phase but rather recovering from a poor harvest (output down 5% in 2001/02) and GDP growth of 4%. Growth has since slowed and by 2006 is forecast to drop to 6.3%.

The declining performance of the economy was general after the mid-1990s (table 8.19). The economy recorded slower growth in agriculture, industry, (even) services, and private consumption. Perhaps the most striking feature of the downturn was the collapse in private investment. The annual growth of private investment declined from 13.4% p.a. between 1992/93 and 1996/97 to only 6.6% p.a. between 1997/98 and 2001/02. The fall was especially pronounced in private fixed investment, growth of which slumped from 15.3% p.a. to 3.7% p.a. over the same two time periods. The principal factor sustaining growth was the public sector. The growth rates of public consumption more than doubled, from 4.6% p.a. to 10.6% p.a. Public investment also recorded an increase in its growth rate, from 1.7% to 6.2%. There is an irony here, liberalisation was supposed to

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industry.

unleash the private sector. Instead the private sector became increasingly dependent on the public sector after the mid-1990s.

Table 8.19: Growth Rates of Real GDP and its Components (Annual Averages, in percent)

	1990s	1992/93 to 1996/97	1997/98 to 2001/02
GDP at Factor Cost	6.1	6.7	5.3
- Agriculture	3.1	4.7	2.1
- Industry	6.3	7.6	4.5
- Services, excluding Govt	7.9	8.1	7.5
- Govt	6.7	3.9	9.5
GDP at Factor Cost, excluding Govt	6.0	6.8	5.1
GDP at Market Prices	6.0	6.5	5.4
- Private Consumption	5.1	6.0	3.9
- Public Consumption	7.2	4.6	10.6
- Private Investment	10.3	13.4	6.6
Of Which: Fixed Investment	10.0	15.3	3.7
- Public Investment	3.7	1.7	6.2

Source: (IMF 2002:10).

4.4. Optimal Growth or Dynamic Growth?

Trade liberalisation and increased market competition could lead to two very different outcomes, both would be judged 'efficient' according to the three neo-classical requirements but have very different implications for long-run development. These two are the low and high-roads of economic development.

Firstly, India could react to intensified competition by trying to enhance it price

competitiveness within its existing labour-intensive niche by extending hours, reducing overheads (subcontracting) and intensifying work conditions (a low-road of competition). Secondly, India could remain in an existing labour-intensive production niche and raising the productivity of labour (learning), or upgrading to a less (price) competitive market niche to capture rents (a high road of competition).

Sustainability is defined here as dynamic efficiency, and examined in the context of comparative advantage. Some scholars have argued an evolving structure of trade and production based on India's existing comparative advantage is a viable strategy for sustainable economic growth. "For the next two or three decades at least, our analysis suggests that such an expansion of exports would and should be concentrated on labour-intensive manufactures." (Mayer and Wood 2000:34).

There is good evidence that the predictions of comparative advantage have, with a couple of empirical oddities borne true. There is however little sign of export dynamism, while many allocations may be (neo-classically) efficient some are more (dynamically) efficient than others. India is not emulating the boom in labour-intensive exports that China enjoyed after 1978. Nor does the Indian export basket offer much scope for future growth. Between 1990 and 1995 exports (in dollar terms) grew by 12.8% p.a.[88]. While creditable and above India's long-term average and growth of world trade, in the same period exports grew by 20.5% p.a. in Pakistan, 28.3% in China, 34.3% in Malaysia, and 25.4% in Indonesia (Lall (1999:1771). Lall (1999) classifies products into resource-based, low, medium and high technology categories (table 8.20). He demonstrates the shift in the structure of world trade from simple to complex technologies. The rate of growth of world trade rises progressively as technologies become more complex[89].

[88] Slower than the rapid growth of 18.2% in the five years before reform, in 1995/86 the growth rate slumped to only 2.6%.

[89] There are of course exceptions to these neat categories, some low-technology products have skill or technology intensive segments, some high-technology have simple segments. Mature industrial countries can retain a competitive edge in low-tech products by specialising in quality and design intensive.

Table 8.20: The Evolution of World Manufactured Exports by Technological Categories

	Shares (%)				
	1980	1985	1990	1995	1996
Resource-Based	19.5	19.3	15.5	14	13.7
Low-Tech	25.3	23.4	23.7	22	21.3
Medium-Tech	38.6	37.3	38.5	36.9	37.2
High-Tech	16.5	20.1	22.2	27.1	27.7
	Rate of Growth (% p.a.)				
	1980-5	1985-90	1990-95	1995/96	1980-96
Resource Based	2	10.1	6.4	-0.2	5.7
Low-Tech	0.7	15.3	6.9	-0.9	6.9
Medium-Tech	1.6	15.7	7.7	3	7.8
High-Tech	6.3	17.4	13	4.5	11.6
Total	2.3	15	18.6	2.1	8.1

Source: (Lall 1999:1775).

Resource-based and low-technology products dominate India's export structure, accounting for 86% of total manufactured exports in 1985 and 83% in 1996 (world averages 43 and 35% respectively). Between 1985 and 1996 India's export structure the structure has remained static. Lall (1999) labels 'Rising Stars' those products in which India is increasing its world market share and where world trade is growing faster than the average for all exports. With the exception of Pakistan India does the worst in Lall's reference group. Rising stars comprise 20% of Indian manufactured exports, falling stars nearly 2/3rds. Malaysia and Singapore have around 70% of rising stars. India's structure of production and exports has evolved in a manner in accordance with its comparative advantage. There are no signs of the development of an indigenous technological and learning effort necessary to attain a dynamic export trajectory. More widely risks of relying on labour-intensive exports include declining terms of trade for labour-intensive manufactures (Mayer 2002; Athukorala 2000), a race to the bottom (Kaplinsky 1999) and the risk of protective measures in developed countries preventing developing countries collectively expanding labour-intensive exports (Cline 1982).

The perception that India's economy showed little sign of dynamism during the 1990s is borne out by studies of productivity. Save for one influential though methodologically mistaken study there is a broad agreement that TFP growth declined during the 1990s relative to the 1980s.

Unel (2003) found TFP growth accelerated between 1991 and 1997 relative to 1979 to 1990. Unel uses two methods of estimating TFP; both show acceleration over the reform period, 1.8% to 2.5% and from 3.2% to 4.7%. Unel also argues that labour productivity and capital intensity increased after 1991, while the capital-output ratio declined. By sub-sectors, Unel shows that labour productivity is higher in newer industries such as paper, machinery and transport. Factor productivity in more traditional industries such as paper, wood, leather and to a lesser extent, textiles he argued declined. There are good reasons to doubt these findings. Unel underestimated the size of the capital stock in 1979/80 by starting his series for fixed investment in 1970/71, so artificially inflates measures of capital productivity. Using a more realistic base of 1959/60 (together with an assumption of 5% depreciation) gives a measure of the size of the capital stock in accordance with other evidence[90]. Goldar (2004) corrects for these errors and finds that TFP growth was lower than Unels estimates in between 1979/80 and 1990/91 and for the periods 1991/92 to 1997/98, and 1991/92 to 1999/00 (table 8.21).

Table 8.21: Estimates of Total Factor Productivity Growth[91]

	Average Annual Growth Rate (This Study)	Average Annual Growth Rate (Unel 2003)
1979/80 to 1990/91	2.14 (2.14)	2.8
1991/92 to 1997/98	1.00 (0.91)	2.5
1991/92 to 1999/00	1.57 (1.32)	Not covered

Source: (Goldar 2004:5036).

[90] In particular the estimate of the size of the capital stock given by the NAS.
[91] Figures in parentheses based on net value added.

The broad pattern of these findings – a slowdown of productivity growth in the reform era is confirmed by other studies. Balakrishnan et al (2000) use a time dummy variable and find a statistically significant decline in TFP after 1991/92. Das (2003a) looks at TFP in 75 three-digit manufacturing industries between 1980/81 and 1999/00 (accounting for over 65% of total manufacturing value added). He finds that the contribution of TFP growth declined in the 1990s relative to the 1980s. Rodrik and Subramanian (2004) make two estimates of TFP with differing assumptions about the size/ composition of the labour force. In the first (between 1980 and 1990 and 1990 to 1999) TFP growth fell from 2.89% to 2.44%, and in the second from 1.28% to 0.94%. Goldar and Kumari (2003) find industrial TFP growth dropped from 1.89% p.a. between 1981/82 to 1990/91 to 0.69% between 1990/91 and 1997/98. There was also a sharp fall in the rate of general TFP growth from 3.1% p.a. between 1992/93 to 1996/97 and 1.9% between 1997/98 and 2001/02 (IMF 2002:22).

There is a serious lacunae in the literature. There are few studies analysing the link between trade liberalisation and TFP growth at firm level. Balakrishnan et al (2000) proclaim they are doing just that but only use a dummy variable for the period after 1991/92 to measure the 'impact of reforms'. Pandey (2004) comes close, he constructs various measures of trade orientation based on both non-tariff and tariff barriers. He does not relate these to specific firm-level TFP growth and only constructs correlation coefficients for trade orientation and growth of gross value added and price-cost-margins. The correlation coefficients are negligible in both cases. Goldar and Kumari (2004) is perhaps the only example they find that the coefficient of the NTB variable is positively related to TFP growth, though not significant.

Studies of FDI in India have revealed few signs that it is contributing to learning or diversification. Aggarwal (2002) finds no relation between foreign equity stake and export performance of firms in Indian manufacturing. Pantibala (2002) finds at best only ambiguous evidence. Both of these studies find foreign firms are conducting minimal R+D in India. Mani (1998) argues that spending on R+D has shown a declining trend since 1991, enterprise financed R+D fell to only 0.14% of GDP in 1995 (Lall

(1999:1782). A basic problem is the nature of FDI in India. FDI in Mergers and Acquisitions (M and A) are poorer than Greenfield investment in terms of spill-over benefits, competition and efficiency and may not lead to an increase in the capital stock. Greenfield FDI brings with it new production, organisation and management know-how. MNC's have not been using India as an export platform. Increased export intensity of Indian manufacturing has largely been driven by pre-existing firms becoming more export-intensive (Nagaraj 2003a; Poddar 2004). FDI has aimed at exploiting the domestic market. Between 1997-9 nearly 40% of FDI inflows into India have taken the form of M and A of existing Indian enterprises. Liberalisation of FDI policy and gradual liberalisation of the overall policy framework in the 1990s has facilitated the adoption of M and A. MNC related M and A are highly concentrated in consumer goods such as food and beverages, household appliances, and pharmaceuticals. MNC's are using established marketing, distribution networks and sometimes brand loyalty. Coca-Cola re-entered India and acquired Parle the largest domestic soft-drink firm with several established brands, nation-wide bottling and distribution. Pepsi acquired Duke a smaller soft drink manufacturer. Hindustan Lever (Indian subsidiary of Unilever) acquired Kwality and Milkfood to enter the ice-cream market. A large number of acquisitions have been made by Indian affiliates of MNC's often using internal funds and domestic borrowings. Examples include the acquisition of TOMCO, Lakme, Kissan Products, and Kothari General Foods by Hindustan Lever. Lafarge funded its Rs 5,000m acquisition of TISCO Steel in Nov 1999 with Rs 2,150m borrowing from a consortium of domestic financial institutions. Such take-overs would have been harder in the 1980s due to the provisions of the MRTP Act. Following on from liberalisation of the automobile industry in the 1980s most leading foreign manufacturers entered the country mostly through joint ventures. After getting acquainted with the local market MNC's have typically bought out their local partner. In the automobile sector, Daewoo has bought out (local firm) DCM Group from their joint venture, the same has happened between Ford and Mahindra, FIAT and Premier Automobiles, GM and Hindustan Motors, Mercedes Benz and Telco.

Further whatever positive contribution FDI could make is limited by the very small size of capital inflows. Market penetration by FDI remains low. Against a government target of $10bn p.a. actual inflows have increased, from $127m in 1992/93 to $3.2bn in 1996/7 and stagnated at this level thereafter. In 1991 FDI accounted for only 0.3% of gross private fixed capital formation rising to 1.1% by 1993. In 1996 China received FDI totalling $42.3bn. As a share of gross domestic investment in 1995 inward FDI totalled 24.6% in Singapore, 6.7% in Pakistan, 8.4% in China, 6.5% in Indonesia and only 3.6% in India.

4.5. Case Studies

The software and textiles sectors illustrate more specifically the general point discussed in the empirical critique of comparative advantage. Production and exports have expanded rapidly in both over the reform era. Both remain stuck at the low end of the market.

4.5.1. Software

The software sector illustrates specifically all of the general points made in the critique of comparative advantage. Liberalisation has lead to rapid expansion of the industry but there are problems hindering efforts to raise value-added.

In 1990 India's software exports were estimated at $131m, by 2001/02 they had risen to $7.8bn, growth exceeding 30% in most years. Currently such exports comprise 16.3% of total exports, 65% of total IT exports are software related. The IT industry as a whole represents 2.87% of GDP. Employment estimates for the IT sector vary widely, 200,000 in 1999 (Saxenian 2001), 410,000 in 2000 (Arora and Athreye 2000), and 650,000 in 2002/03 (Basant and Rani 2004)

There is a debate about whether the software sector in India is acquiring 'technological capability'. The fact of this debates existence takes us beyond the narrow confines of neo-classical economics. Neo-classical economics assumes there is no problem or cost in assimilating transferred technology in developed countries. All firms remain equally efficient and firm specific learning is unnecessary. In reality to utilise technology and innovations produced elsewhere firms must acquire 'technological capabilities' (Lall 1992). These include; 'Investment capabilities', the skills needed to identify, prepare, obtain technology, design, train staff and commission a new facility; 'Production capabilities', ranging from basic skills such as quality control, operation, maintenance to more advanced such as adaptation, improvement or equipment stretching; and 'Linkage capabilities', the skills needed to transmit information, skills and technology (Lall 1992).

There is mixed evidence of the technological capability of the software sector. Some have argued that India's specialisation in low-end services would limit learning (D'Costa 2003). India provides a range of services, including programming, conversions, testing, debugging, installing, and maintaining while specialists in industrialised countries continue to write core software. This has led to concerns that the Indian software industry despite its apparent successes has returned to the production pattern of the 1960s (Heeks 1995). Foreign tie-ups, foreign brand names and access to the latest imported technology were again the most important considerations. Most so-called Indian computer companies actually just produce software for integration with imported hardware. This argued Evans (1995) even more pessimistically, is a reversion to an earlier colonial trading pattern. India is exporting inexpensive lines of code and importing expensive foreign software whilst being trapped at low return end of division of labour. The effects of heavy import dependence are striking. While the textiles sector was 98.5% self-sufficient on local inputs (Verma 2002) average net export earnings of the software sector were -$1bn on average between 1998/99 and 2002/03.

This view is too pessimistic; there is some evidence of learning having occurred in the software sector. A growing number of MNC's followed the pioneers (Texas

Instruments and Hewlett-Packard) in setting up offshore development centres in India in the 1990s. These now include Motorola, IBM, Microsoft, Philips and BT. Hewlett Packard has developed a strong linkage with the Indian Institute of Science in Bangalore for its R+D activities. Oracle expanded its local R+D personnel to several thousand in the early 1990s. Motorola in the early 2000s had 1,300, three quarters of them working in software development and chip designing, mostly in the telecom sector. Anecdotal evidence suggests they have begun to take on more sophisticated design and programming projects jointly or independently and often as equal to their parent organisations (Saxenian 2001:11). In 1990 onsite sourcing (sending teams of labour overseas to service clients software needs and known as body-shopping) constituted 90% of revenue in the software sector. This figure had fallen to 38.9% in 2002/03. In contrast offshore (contracting of work from MNCs to specialised Indian firms) increased from 5% in 1990/91 to 57.9% 2002/03. Tata Consultancy Services was formed at the end of the 1980s when 75% of its work was customising software abroad for foreign clients. Within twenty years the firm was project managing for overseas clients. By 2005 companies such as Wipro and Infosys have a track record that enables them to win consulting contracts often on a turnkey basis. More direct evidence of learning is demonstrated by the fact that 32 Indian firms received the prestigious SEI-CMM certification by the late 1990s. The certification is based on an assessment (by the Engineering Institute at the Carnegie Mellon University) of controlling, managing and improving software development projects. The sector, particularly in Bangalore is taking on many of the features of an industrial cluster such as technical expertise, diverse capabilities, and high interaction among firms. Elsewhere industrial clusters have assisted firms in responding collectively to external shocks (Nadvi 1999), upgrading production (Kennedy 1999), and diffusing learning (Morosini 2004). Growth in the domestic sector is increasingly based on the emergence of domestic firms and entrepreneurs (Parthasarthy and Aoyama 2005).

Even as the industry has expanded in terms of employment revenue per employer (a proxy for labour productivity) has been increasing, from $6198.5 in 1993/94 to $15,600 in 1998/99 (Table 8.22). This may reflect the assimilation of more advanced and

productive technology or ongoing learning, but it certainly illustrates that growth is more than simply extensive in nature.

Table 8.22: Employment and Revenue per Employee in the Software Sector.

Year	Employment	Revenue Per Employee ($)
1993/94	90,000	6198.5
1994/95	118,000	6998
1995/96	140,000	8924.5
1996/97	160,000	11,036
1997/98	180,000	15,000
1998/99	250,000	15,600

Source: (Arora and Athreye 2000:262).

Despite these positive signs there is good evidence of learning problems in the software sector. Despite signs of learning and productivity growth India remains producing at the very low-end of the market where competitive strength is based on low wages rather than productive dynamism. Productivity remains very low by world comparisons (Table 8.23). India does have something of a comparative advantage in software production. This could though be considered as much to do with continued disappointing performance in the industrial sector as a service sector miracle. In the 1990s service sector growth was actually higher in China (9.1%) than in India (7.5%). What made the difference were the very rapid rates of industrial growth in China (13.6%) relative to the very disappointing rates in India (5.8%).

Table 8.23: Comparisons of Productivity in manufacturing and software (1995)

Country	Value Added Per Employee in Manufacturing ($'000)	Software Revenue Per Employee ($'000)	Comparative Advantage (3)/(2)
Israel	38.30	100.00	2.61
Ireland	117.10	142.24	1.22
India	4.10	8.93	2.18
France	77.43	161.32	2.09
Finland	76.16	83.46	1.10

USA	98.20	126.02	1.28

Source: (Arora and Athreye 2000:260)

Studies of FDI in other contexts have argued MNCs may provide spillovers to the domestic economy via demonstration effects to local firms (Grossman and Helpman 1991a; Kokko 1994; Aitken and Harrison 1999). Those optimistic about the software sector in India include who argues that MNC entry will do just this, providing demonstration effects to local firms and technological and informational externalities (Pantibandla 2002). This optimistic case is unlikely in the Indian software sector. The key characteristic of the Indian software industry is the segmentation of domestic and export markets. Between eighty and ninety percent of domestic output is exported. There are clear differences in the types/ levels of user need in US/ domestic markets. This has the implication that technological learning from exports is not of immediate use in domestic market. Firms need to build up tacit knowledge but such knowledge is experience based on and heavily influenced by user needs. Off-shore production does not provide the proximity to users that short development cycles, and high responsiveness to user needs requires so perpetuates passive dependence on outside technology.

The software sector is still driven by external factors, so is still a dependent sector that lacks a real internal dynamism. Firms in the sector are still tiny by world standards; the largest Tata Consultancy Services in the early 2000s had annual sales of $352m, Microsoft of $23bn. FDI has been driven by pull factors such as the US Internet boom and Y2K problem. India continues to host software FDI as service dominated developed economies seek to cut costs by re-locating labour-intensive aspects of IT. These now include call centres, debt collection, equity and bond analysis, accounting, filing income taxes, and clinical drug research. Such growth is determined by low wage costs (Chithelen 2004). Wages in the software sector have been rising by 30% p.a. from the late-90s eroding this competitive advantage (Athreye 2004). The history of call centres bears this out this concern. They moved first within the US from urban to rural areas and to low rent cities in the mid-west and south, then to Canada, to Ireland and now India. Rising wage costs could easily begin a movement elsewhere. Despite rising productivity

India is near wholly dependent on low wages for its competitive strength, factors such as infrastructure are strikingly bad in India. In 1996 for example India had 15 main telephone lines per 1000 people compared to 395 in Ireland and 446 Israel. In the same year India had 1.5 computers per 1000 people, compared to 145 Ireland and 117.6 Israel.

One of the most dramatic successes has been in software-hardware embedded solutions. This incorporates some kind of embedded systems design and development in a combination of hardware and software dedicated to perform a specific task without human intervention. Such mechanisms are part of many consumer goods such as cell phones and. By 2003 there were 100 such dedicated firms. There is limited scope for such growth; in 2003 the entire world market in this area was worth only $21bn. A very small share of the global IT industry, estimated to be worth in 1999/00 $3-500bn (D'Costa 2003:211). The sector also crucially depends on synergies with a hardware sector. Hardware revenues have been generally stagnant in India over the 1990s (Heeks 1995, Pingle 1999).

The movement of skilled labour is an important mechanism by which skills and learning are diffused. There has been some reverse immigration into India, especially since the end of the US Internet boom. 71 of 75 MNCs in Bangalore's software technology parks are headed by Indians who had lived and worked overseas. The dominant flow has though remains outward migration. There are about 250,000 Indian software developers in the US, 40-50,000 are travelling to Europe/ US every year. In 1999 55,000 Indians applied to work in the US on the highly skilled foreign person's visa initiative. Far from disseminating skills to the rest of the economy the Indian software sector has facilitated skilled migration from an economy where 70% of the population are still engaged in agriculture. The inability to retain labour has had a severe impact on successful project management in the IT sector (Tschang 2001).

Despite such concerns about learning there is enormous scope for extensive growth within the software sector in services such as remote processing, medical transcription, insurance processing, payroll and human resource services, call centres, and customer

interaction services. Even with productivity well below foreign competitors (table 8.23) such extensive labour-intensive growth would continue to raise average productivity within India. The IT sector is likely to increase its share of GDP from 3% currently to 6-8% within ten years (Kapur 2002).

4.5.2. The Garment Industry

By 2000 the textile and apparel industries constituted 4% of GDP, 14% of industrial output, and were the second largest employer (35m) after agriculture (Verma 2002). Despite India's historically large and diversified production base exports were negligible until the 1980s. A leading tier of competitive domestic firms were able to restructure themselves in the mid-1980s and early-1990s build links with buyers and suppliers at home and abroad and increase exports rapidly. The Ludhiana kintwear cluster for example suffered a 21% fall in knitwear exports in 1991/92 due to the collapse of the USSR, its erstwhile largest market. Exports then revived very quickly and expanded by an average of 70% p.a. for the rest of the 1990s (Tewari 1999). By 2003 India exported $13.5bn in textiles and apparel, up from under $6bn ten years earlier. With an import intensity of only 1.5% this made the sector the largest net foreign exchange earner in India (Verma 2002).

Growth of exports increased rapidly after reforms to domestic textile policy in 1985. This was a pattern of extensive growth based on gaining greater market share in simple low-cost cotton based products rather than exporting higher value added products. By 2000 India had large shares of the market in the EU and EC in a few simple products. For woven shirts for example the size of India's MFA quota was already close to the size of the entire US market. Consequently such extensive growth began to reach limitations. Export growth showing a secular decline over the twenty-year period. Apparel exports grew by 19.3% between 1985 and 1990, 7.8% 1991 to 1995, 5.9% 1996 to 2000 and 5.2% 2001 to 2003 (Tewari 2005a:17). The abolition of the MFA at the beginning of 2005 is likely to lead to opportunities for renewed extensive growth. For example in cotton shirts about 43% of the US market was opened to foreign competition on January

1st 2005. It has been predicted than India will rise from a 4 to 15% share of the US apparel market, a rapid increase but someway behind China's 50% share (Tewari 2005a:2). Such renewed extensive growth was evident in 2005. Between January and August 2005 the growth of apparel exports to the US increased by 61% from China and 33% from India. Low cost exports from these countries was largely displacing exports from higher-cost more developed countries Korea (-65.5%), Malaysia (-2.5%) and Taiwan (-27%) and smaller developing countries Lesotho (-7%) and Costa Rica (-7.4%).

To sustain export growth over the longer-term a shift to a more intensive growth path will be necessary. In East Asia the key to success in buyer driven chains was the move from the assembly of imported inputs to a more domestically integrated and higher value added form of exporting such as full-package supply or original equipment manufacturing (Gereffi 1999). This requires industrial upgrading to a higher road of competition, emphasising quality, productivity, variety, and timely delivery rather than just the low prices consistent with a low road of competition. There are key advantages to moving into higher value added stages of production, such as the easier availability and protection of rents and less vulnerability to declining terms of trade (Kaplinsky 1999). For India 57% of the value added in man's cotton shirts and 61% in man's khaki trousers is added at the global retail stage (Tewari 2005b).

There has been significant forward integration by yarn-makers and spinning mills into garments. Arvind Mills is the largest producer of blends and denim in India and has long been a large supplier of denim to major producers such as Gap and Levis. In early 2000 the firm invested $35m to integrate into jeans and T-shirts and set up a number of joint ventures to produce branded labels for the domestic market. Though in the main exports from India remain at the low-end niche of the international market and remain dominated by simple cotton products. By the late-1990s 44.3% of total textile exports were accounted for by cotton fabrics and 26.9% by cotton yarn, within garments 69.7% of exports were accounted for by cotton fabric. Between 1995 and 2003 there was no sustained increase in the average value realised on units exported. In T-shirts (in constant dollars per unit) this declined from 3.1 to 2.9, in women's cotton woven blouses and

shirts from 4.2 to 3.5, in women's knitted cotton blouses and shirts from 3.1 to 2.5. Men's knitted cotton shirts rose slightly from 3.3 to 3.4, men's woven cotton shirts increased sharply from 3 to 4.5. Women's knitted nightdresses remained at 2.5, women's woven trousers increased from 3.2 to 4.1. Between them these products accounted for around 60% of India's total apparel exports (Tewari 2005a:31). Overall the average value of units sold increased from $3.61 in 1987 to $3.74 in 1997.

Upgrading remains limited in the textile/ garment sector. The level of technology in the Indian weaving sector is particularly low. Of the 1.6 million powerlooms installed less than 1% are shuttleless looms. Even in the organised mills sector only 5.8% of the total are shuttleless looms compared to 80% in the US, Taiwan and Korea. New shuttle and shuttleless looms installed in India between 1989-98 accounted for only 1.6% of installed capacity in 1997 compared to 41% in Mexico. Chinese firms have invested $1bn annually in the import of new cotton and silk processing equipment since 1985. Between 1987 and 1996 China invested in 68,000 shuttleless looms India in only 8,000. In India most investments are in sewing machines. Special and processing machines that can add significant value account for a very small part of the total number of machines unlike other Asian countries such as Hong Kong and China. The textile and apparel sector received only $351m in cumulative FDI between 1991 and 2004 (Tewari 2005a). A proxy measure of the efficiency and reliability of the domestic supply chain are the defect rates on final products, in India these run somewhere between double and five times higher than those in China (Tewari 2005b:48). In a world where delivery times, cost and quality are critical in the garment sector the proximity of good quality textile production can be an important benefit. Further India like a very few other developing countries (Egypt and Pakistan) is nearly self-sufficient across the whole value chain. This advantage in terms of resource endowments has not been translated into a competitive strength. The performance of cotton yarn, man-made textiles and garments in terms of unit cost growth has been poor. The unit cost of cotton grew by 13% p.a. and garments 10.6% p.a. between 1989 and 1997. The price of polyester yarn in India (1998/99) was Rs 70 per kg compared to Rs 43 per kg on the international market (Hashim 2004). Most damning of all is the abysmal productivity performance of the industry. Between 1989

and 1997 average annual growth of TFP was –1.92% in cotton yarn, 0.56% in man-made fabrics and 1.45% in garments (Hashim 2004:29). With rising unit costs and falling productivity the only means to sustain a competitive edge was through a low road of competition. India's primary competitive strength lay in low(er) wages, one eighth of those in Hong Kong and South Korea. Tirrupur has been one of India's most successful clusters seeing dramatic increase in indicators of turnover, sales, and employment since the 1970s. There has been substantial development of backward and forward linkages within the textile sector. This growth though has been based on an intensification of work through long hours, piece rates and child labour. A low road of competition is compensating for the need to improve productivity (Cawthorne 1995). There is evidence this path is generally being pursued in the Indian textile industry. The fragmentation, ruralisation and casualisation consistent with a low road of competition has already had a profound impact in India. As early as the 1960s textile mills in Ahmedabad and Bombay began putting-out weaving work to decentralised power-loom units. Large urban cotton mills have declined and the industry has become ruralised in smaller industrial units. Firms tend to be much smaller in India, an average of 119 machines compared to 698 in Hong Kong and 605 in China. Investment per machine in exporting firms averages $250 in India, $3510 in Hong Kong and $1500 in China. Between 1990/91 and 2000/01 the share of mill production in total output of cloth actually declined, from 11 to only 4%, the powerloom sector (mainly using old discarded textile looms) increased its share from 57 to 59% and the handloom sector remained at 18% (D'Souza 2004:15).

5. The Political Role of the State: Institutions

5.1. The Problem in the 1980s

Despite big election victories in 1980 and 1984 there was no restoration of the old Congress system. The party organisation had decayed and the authority and ability of Congress to mediate in local affairs had declined sharply, an institutional vacuum

emerged in the periphery. Intense and undisciplined factionalism led to a difficulty in retaining power, the resort to populism and conflict shifting to street violence. Congress was unable to diffuse political tensions by negotiation and incorporation of the local level leadership. Between 1979/80 and 1989/90 higher public investment was associated with a massive increase in the government fiscal deficit and a sharp decline in public sector savings. The state in the 1980s did not have a conflict managing institution necessary to allocate the resulting burden of financing public investment. This occurred in conjunction with a continued growth in rent-seeking and unproductive rents that had begun after the mid-1960s. The state possessed no institution for identifying those requiring compensation, minimising the transaction costs associated with such transfers, and minimising rent-seeking by other entities. Political mobilisation in agriculture generated a massive growth in subsidies (rents). Subsidies increased across the board in numerous economic sectors, reaching 15% of GDP in 1987/88. Strike activity reached new peaks in the 1980s and was quickly followed by rising wages. The pattern of growth in the 1980s was unsustainable due to the build up of domestic and foreign debt.

5.2. Puzzles Surrounding Reform in the 1990s

There are two puzzles surrounding reforms in the 1990s. The first puzzle being how the government was able to push through neo-liberal reforms in the face of what contemporary commentators argued was a hostile majority. The second, being to explain the signs that the explosive growth of rents dating from the mid-1960s and accelerating into the 1980s was at least slowed during the 1990s. The combined indication being that the state was able to push through the neo-liberal agenda with less rent-seeking than had been expected.

5.2.1. Neo-Liberal Reforms

There is a general consensus that 1991 marked the beginning of a fundamental shift in economic policymaking. State sector reservation was reduced from 18 industries to only three (defence related aircraft and warships, atomic energy generation and railway transport). Industrial licensing was abolished except for a few hazardous and environmentally sensitive industries. The Monopoly and Restrictive Trade Practises Act 1969 (MRTP) was abolished. Reservation for production by the small-scale sector covered some 800 items by the late-1970s, 14 items were removed from the list in 1991, and another 50 in 2002. The investment ceiling for producers to be defined as small-scale was raised for certain items. There was progress in trade policy liberalisation though at a slower rate than industrial liberalisation. Capital goods and intermediaries became freely importable in 1993 (subject to tariffs). This was made simultaneously with the switch to a flexible exchange rate regime. Progress with import protection of consumer goods was slower. In April 2001 QR's were removed for agricultural and consumer goods. The weighted average of import tariffs declined from 72.5% in 1991/2 to 24.6% in 1996/7 and after some increases a renewed fall to 29% in 2002/03.

These reforms generated a burst of euphoria. Reforms were clear, "the reforms are forceful and explicit……[there is]…..no ambiguity of intention." (Bhagwati 1993:84). Few people had imagined that the economy, "would be transformed in its basic orientation in a matter of a few years." (Sachs et al 1999:13). It marked, "a fundamental transformation of India's economic strategy." (Varshney 1999:230). This is contrasted with the general consensus that reform efforts had failed under Rajiv, that there was a short-lived effort to liberalise the economy then a return to intervention as usual "the illusion of autonomy and the euphoria of a new beginning lasted about six months." (Kohli 1990:318).

The experience of failed reform and dramatic electoral repudiation of Rajiv by 1989 provided a salient lesson that popular opinion was against liberalisation, "The country seems agreed ideologically on secularism, socialism and democracy, on the merits of a mixed economy" (Rudolph and Rudolph 1987:1). No democratic politician should have wished to be associated with a neo-liberal agenda for fear this, "might destroy the broad

national consensus that characterised the evolution of India's economic policy." (Jalan 1992:21). In summary there was a stable political economy of intervention with a, "broad, heterogeneous and hugely formidable array of interests to oppose liberalisation" (Manor 1987:39).

Why did the leadership sustain liberalisation? The pattern of liberalisation/ structural adjustment without macroeconomic (fiscal) adjustment after 1991 was strikingly different from the response to previous crises. As Ghosh (1998) noted economic crises in 1965-7, 1973-5 and 1979-81 were all headlined by the rise of the rate of inflation to over 10%. In all cases the government responded with short-term stabilisation (monetary and fiscal tightening) and not long-term structural adjustment[92]. A minority government sustained reform after 1991 while a government with a three-quarters parliamentary majority was unable to do so long after 1985. The 1991 crisis was after all short-lived, the Gulf War oil shock lasted only six months. There was a rapid recovery of investor confidence and subsequently a rapid rise in foreign exchange reserves. Changes of government to left in 1996 and right in 1998 did not change the general direction of reform. Unlike previous crises that in 1991 wasn't preceded by a real shock. The real economy was in a very healthy condition. Industrial production was growing at an annual rate of 8%, agricultural production was at a peak. The dollar value of exports had increased by 14% p.a. between 1985/6 and 1989/90. There had been slow economic growth after the mid-60s but no catastrophic excesses like the Chinese Great Leap Forward[93] or Latin American lost decade. There was no discredited authoritarian regime failure to place blame upon, the same party (Congress) was in power in 1991 as for most of the Independence period. There was no attempt to galvanise the nation in support of reforms, to project a vision in order to change the structure of interest groups. The government was, "unable, or unwilling, to make a clear ideological statement in favour of market orientated reforms in electoral or mass politics." (Sachs et al 1999:14). Why do we see the neo-liberal agenda being pursued in India long after the need for stabilisation had

[92] 1985 was distinct in being an episode of liberalisation/ structural adjustment not related to any short-term economic crisis.

[93] Yang (1993) argues the catastrophe of the Great Leap created an important legacy for the psychological mindset of the Chinese leadership that had a profound effect on post-Mao economic reforms.

subsided?

5.2.2. Better Control of Rent-seeking

The volume of politically motivated rents expanded rapidly in the 1980s. Subsidies for agriculture exploded in the 1980s, often in direct response to agitations. Mundle and Govinda Rao (1991) found subsidies accounted for 15% of GDP by 1987/88. Strikes reached new post-independence peaks in the early-1980s. Real wages in organised manufacturing and in the public sector increased by about 30% from the late-1970s to the early-1980s (Joshi and Little 1994:155).

There are clear signs that the growth of rents have continued at state level in India. Decentralisation has shifted responsibility to state governments. Various groups in particular caste organisations and farmers groups tend to be better organised at the state level. State governments have higher deficits, less efficient administration, are more corrupt and less stable (Weiner 1999). Few state governments have begun to reform State Electricity Boards (SEBs) for example, they still suffer major transmission and distribution losses, tarrifs do not cover costs, and farmers receive subsidised electricity and near free water for irrigation. Losses from SEBs increased six fold between 1985/86 and 1994/95 (Bardhan 1984/1998). State tax revenue has not improved significantly over the 1990s. There remains significant evasion of excise duties on alcohol, sales taxes in general and urban land taxes. State level employment has continued to increase, from 6.1 to 7.3m between 1984 and 1994 while central employment has remained unchanged (Weiner 1999). Local state officialdom continues to reap rents from local regulations for planning, factory inspections, license renewal, water and electricity services (Weiner 1999; Jenkins 1999). Political protection can be supplied at a price to criminals, liquor manufacturing for example is commonly allied to local politics (Jenkins 1999). Tax evasion and black investment have not declined, liberalisation has shifted the location of rent-seeking to the market (Harriss-White 1996).

Liberalisation has not just shifted corruption but actually created new avenues to derive corrupt income (Jenkins 1999). Central government disinvestment has generated scope to trade on insider information, manipulate prices on the secondary market, and place rights issues to family members. The opening up of previously reserved sectors to private sector investment without lack of established rules of procedure (e.g. stock market regulations) has generated ample scope for politicians to benefit themselves. Infrastructure investment by MNCs has allowed politicians scope to derive illicit income in foreign currency bank accounts which is far more difficult to trace. According to careful estimates the black economy has grown in size from 20% in 1981, 35% in 1990/91 to 40% in 1995/96 (Kumar 1999).

Despite these tendencies there are signs that overall rents were better controlled in the 1990s. Total expenditure by state governments fell from 12.2% of GDP in 1994/95 to 10.7% in 1999/00 (table 8.4). Total expenditure by the central government fell from 19.66% of GDP in 1990/91 to 16.63% in 1997/98. Over the same period directly budgeted subsidies fell from 1.79 to 1.30% of GDP (table 8.5). Subsidies on fertilisers fell from 1,11% of GDP in 1989/90 to a low of 0.56% in 1993/94. Cost recovery of power supply in agriculture increased, from 74.5% in 1989/90 to 82.2% in 1992/93. Total subsidies to the agricultural sector dropped from 2.46% of GDP in 1990/91 to 2.02% in 1993/94.

This thesis has presented three complementary hypotheses to explain how the state is able to both initiate and sustain episodes of growth or be constrained to an episode of stagnation. A key problem is that growth in a developing country is an inherently conflictual process. Between 1951 and 1965 the state was able to absorb dissent into an inclusive institution (the Congress Party) so neutralise opposition and calm conflict at minimal cost and allow rapid investment-led growth. With the collapse of the Congress system after the mid-1960s unproductive rent-seeking exploded and saw large quantities of resources dissipated as rents to maintain political stability rather than promote economic growth. In the 1980s the state added rapid growth of public investment to this heady brew. The economy grew rapidly as higher public investment mitigated some of

the key constraints on economic growth (notably a shortage of power and infrastructure). The state was unable to impose the costs of this investment on any particular group, and rent-seeking more generally continued to increase. The result was that the episode of growth was unsustainable due to the build up of domestic and foreign debt. For the 1990s we have three complementary hypotheses, an inclusive state, a repressive state and an ideological state. These are the (complementary) explanations that can explain firstly, how the state was able to push through a neo-liberal reform agenda and secondly, how this was done whilst for a time at least controlling the growth of unproductive rents.

5.3. Inclusive Institutions

After the defeat in 1977 Congress came back to power in 1980 winning 351 parliamentary seats with 43%, and in 1984 415 seats with 49.6% of the vote (chapter VII). Congress attracted a broad base of support, the rich and poor, Muslims and Christians, scheduled castes and tribals. This was not though a restoration of the old Congress system. The features of the dominant party outlined by Kothari (1964) were conspicuous by their absence in the 1980s. The party organisation was moribund at local level. The authority and ability of Congress to mediate in local affairs had declined sharply. No longer was there a Congress system able to incorporate groups and subject them to party institutions of hierarchy, conflict management procedures and transactional negotiations. Congress had ceased to be an institution of integration and groups mobilised outside its weakening formal political structures. As the Congress system disintegrated in the late-1960s and 1970s there emerged an institutional vacuum in the periphery. This argues Kohli (1990) helps to explain a number of political trends - coalitional instability, ineffective local government, and the emergence of personal rule. Intense and undisciplined factionalism led to a difficulty in retaining power, the resort to populism and conflict shifting to street violence. The party was conspicuously unsuccessful at diffusing regional tensions by negotiation and incorporation of the local level leadership as it had been in the 1950s. Problems in Punjab and Assam festered during the 1980s. Congress won the national and state elections in 1980 and 1984 but

proved unable to retain power, it lacked the organisation and networks of patronage to retain support doing badly in state elections subsequent to both victories. Dissenters regularly left the party to join opposition groupings or Congress breakaway factions. With only a shaky hold on power Congress did not monopolise the spoils of patronage, there was no particular rationale for groups and patrons to remain within the party if they were not gaining short-term benefits. The exit option was a viable means to bargain for rents and increase access to resources.

Indian politics became more inclusive in the 1990s, this allowed the government to push through liberalisation with less rent-seeking cost that could have been expected from the fragmented politics of the 1980s. There are three ways in which this happened over the 1990s. Firstly, a revival of the national party system, instead of the Congress as a dominant party there emerged a relatively stable two party system, the Congress and BJP. Secondly, between 1991 and 1996 the fear of the BJP united numerous opposition movements behind the Congress, they voted for liberalisation in fear of the alternative. Thirdly, between 1998 and 2004 the structure and organisation of the BJP was conducive to maintaining a cohesive and united party whilst in government.

The first general argument in this section is that the process of the fragmentation of Indian politics beginning in the late-1960s was partially reversed. The 1990s saw the emergence of a relatively stable two-party (alliance) political system. The decline of Congress throughout the 1990s did not herald the decline of national politics but rather the emergence of a relatively stable two party system (table 8.24). The number of seats won by Congress plummeted from 232 in 1991 to 114 in 1999 (from 415 in 1984), the number of seats won by the BJP showed a near equivalent increase, rising from 120 in 1991 to 182 in 1999. The combined share of votes won by the two main parties remained very stable over the 1990s, from a high of 56.6% in 1991 to a low of 49.1% in 1996.

As a point of comparison in 1962 during the height of the dominant party Congress system, Congress won 361 seats with 44.7% of the vote. The second placed party in 1962 was the Communist Party of India (CPI) who won 29 seats with 9.9% of the vote.

A very different election in 1967 saw the Congress win 283 seats with 40.8% of the vote. The second placed party was the Swatantra Party who won 44 seats with 8.7% of the vote. In 1962 the two main parties secured 54.6% of the national vote (about average for the 1990s) and won 79% of the seats (considerably above the average for the 1990s). In 1967 the two main parties secured 49.6% of the national vote (again, about average for the 1990s) and won 62.9% of the seats (slightly above average for the 1990s). The decline of national level politics in the 1990s is much exaggerated.

Table 8.24: Seats won and Voting Share in Lok Sabha Elections, 1991 to 1999

	1991	1996	1998	1999
Seats Won by the Indian National Congress	232	140	141	114
Share of Vote to Congress	36.5%	28.8%	25.9%	28.3%
Seats Won by the BJP	120	161	179	182
Share of Vote to BJP	20.1%	20.3%	25.5%	23.8%
Share of Votes Won by Congress and BJP	56.6%	49.1%	51.4%	52.1%
Share of Seats Won by Congress and BJP	64.8%	55.4%	58.9%	54.5%

Source: (Sridharan 2002:478, Authors own calculations).

The second pair of argument related to inclusion is that because of party political factors specific to the 1990s political support for liberalisation was easier to come by.

The episode of growth between 1991 and 2004 can be divided into two main spells, the early stages of reform under the Congress 1991 to 1996 and the consolidation of reform under the BJP 1998 to 2004. There was an inclusionary bias in both 1991-96 and 1998-

2004 that made support for liberalisation easier to come by and so reduced the cost of rent-seeking.

The inclusionary bias between 1991 and 1996 was based on a widespread political opposition to the BJP. This explains how a minority Congress government was able to push through liberalising economic reforms whereas Congress with a massive majority between 1984 and 1989 was unable to do so. Between 1990 and 1997 the Communists, the lower castes and Janata Dal formed alliances with the Congress against the BJP. Hindu nationalism was perceived to be more of a threat than economic reform. This was especially true after the Babri Mosque demolition in December 1992, only the CPM consistently voted against reforms between 1991 and 1993.

The inclusionary bias between 1998 and 2004 was based on the mobilisation strategy adopted by the BJP. The BJP managed to incorporate and hold together large fractions of Indian society. The parent organisation of the BJP, the Rashtriya Swayamsevak Sangh (RSS) reflects an upper-caste Brahmanical view of the ideal society based on the varna system. The RSS has traditionally managed to attract upper castes and those wishing to emulate them. Conversion of low castes to Hindutva during the 1990s relied on the same logic as the imitation of the Brahmins, 'Sanskritisation'. The other principle mechanism to broaden its support base was through social work. In January 1996 the RSS launched the Samarasya Sangama (Confluence for Harmony). This mandated that each RSS worker should adopt one village in order to contribute to its development and promote 'social harmony' and 'assimilation'. Other front organisations of the RSS such as the Akhil Bharatiya Vidyarthi Parishad (ABVP), and Bharatiya Mazdoor Sangh (BMS) have entered social work. The integrating myth that defines the nation and the 'other' was also being constructed through the education system during the period of BJP-Raj (Harriss-White 2003).

The BJP has certainly been widely characterised as an upper-caste urban-based party. Such views were implicit in the critique of its 2004 'India Shining' campaign for the general election. The victory of the Congress-led opposition alliance was likewise

interpreted as a victory of poor, rural dwellers - those marginalised by the BJP. There *is* good reason to suppose the BJP gained the disproportionate support of certain of these groups. In the 1996 general election in which the BJP supplanted the Congress as the largest party in parliament the BJP won the bulk of forward caste votes, 50% of those in Maharashtra, 64% in Uttar Pradesh and 67% in Bihar. While 32% of urban India voted BJP only 19% of rural India did so. The BJP also won the support of 52% of graduates living in towns and cities. This however is too narrow a view, the BJP systematically expanded its support base beyond this narrow constituency. In the 1995 Gujarat state assembly elections for example the party won 43.3% of the vote and 122 of 182 seats, the Congress only 44 seats with 33.6% of the vote. The BJP won heavily among its traditional constituencies, 53.2% of the urban vote and 70% of upper and middle castes. The party also managed to *spread* its support, winning 41.4% of the rural vote, 39.1% of the tribal vote and large swathes of the OBCs – such as the Kohlis who comprised nearly 22% of the population. In Rajasthan history has provided scope for the Sangh Parivar to wed nationalism and regional identity to a broadly inclusive form of caste politics (Jenkins 1998). The vote share of the BJP rose from 41% in 1991 to 47% in 1996. In Rajasthan the BJP functions like a regional party, the emphasis is on exploiting a pre-existing regional identity imbued with the Rajput ethic and reinventing it for its own purpose. Martial acumen and valour are venerated by all communities in Rajasthan but also closely conform to the sort of assertive nationalism that the Sangh Parivar is attempting to project as a homogenised version of Hinduism. The Rajput community and the social relations in which it is embedded are the embodiment of an ideology which uses the traits of honour and shame against which to measure social prestige. These can appeal to all sections of the (Hindu) electorate though it does highlight conflicts with Muslims. Instead of Sanskritisation lower caste groups in Rajasthan have sought upward social mobility engaged in a process of Kshatriyanisation.

5.4. Repressive State

The second (complementary) hypothesis is that of a repressive state. A lot of literature

discussing the political economy of policy reform in India during the 1980s concluded implicitly that only a repressive state would be able to implement a sustained programme of economic liberalisation. In the Indian context this discussion has been framed within society centred approaches to the political economy of economic reform, analysing the power of different groups to push through preferred policy choices or prevent those reforms they oppose. Many have identified broad interest groups to which they have ascribed either support or opposition for liberalisation (Harriss 1987; Manor 1987; Kohli 1990). The context of this analysis was the perceived failure of liberalisation attempts after 1985. The balance of power between these contending parties variously couched in political, rhetorical or economic terms is held to determine the outcome of attempted reform. Kohli (1990) provides the most comprehensive summary. He argues the position of business to liberalisation in the late-1980s was a mixed one, opposed by the import-substituting sector and welcomed by those benefiting from access to imported raw materials and inputs, foreign markets and the opportunity to engage in joint ventures. The middle classes, professionals and self-employed, those who identified with Rajiv, computers and consumer goods also were in support. Those opposed include the Congress rank and file faced with the loss of patronage resources. The moderate left opposition argued liberalisation undermined both self-reliance and socialism. For rural Groups Rajiv had acquired an urban and pro-rich image. Formal sector labour, especially in the unionised state sector feared the loss of both employment and privileges. There was a broad consensus that liberalisation was opposed by a well-organised and politically vocal majority and hence was politically impossible.

The literature identifies a number of means by which opposition to the neo-liberal agenda could have been overcome. Many of these focus on the need for a more repressive and authoritarian state to force through liberalisation against the wishes of the numerical majority. Rubin (1985) focused on both the ability and will necessary to reassert the autonomy of 'high politics' from the dominant coalition opposed to liberalisation in order to impose upon them the costs of change. It was argued this would require a fundamental change in the functioning of democracy in India, "a real attempt to liberalise the economy

probably would require the establishment of a much more authoritarian regime, able to ride over the powerful interests represented in the dominant coalition." (Harriss 1987:38).

Despite the orthodox view that India has implemented large parts of a neo-liberal agenda over the 1990s there are no signs the state became more repressive over this period[94]. India during the 1990s has moved away from domination by a single political party. Religious minorities, in particular the Christians and Muslisms have been brutally persecuted during the 1990s though this remains only a tendency and doesn't yet define the Indian polity. India's society remains able to expose and contest such activity through institutions like the Supreme Court, the National Commission on Human Rights, and an activist media. The Indian state, while still having many of the features of the 'Third Actor'[95] discussed by Rudolph and Rudolph (1987) is unable to regulate the larger part of the (informal) economy. Big business may have increased its influence over a withering state[96] but monopoly capitalism remains unable to assert a general hegemony, in particular it remains unable to incorporate or subjugate the intermediate classes. The centralising ideology of Hindutva is actively contested in party politics where there remain other organising principles such as region and caste that have become increasingly significant. The state has been violent as never before during the 1990s – the (local) state sponsored massacres in Gujarat being a case in point. This violence has been chaotic and unfocused. State violence in the early-1950s was very different, it was developmental in nature - removing those groups fundamentally opposed to the creation of a geographically integral, democratic and secular India. These included the left-wing uprising in Telengana, the forcible integration of the princely states into Independent India, the demobilisation of the labour movement in the mid-1940s. The state violence of the early years of independence was concerned with enlarging the space of the state to promote accumulation. In the 1990s state violence was indirect, allying itself with shady political forces like the Shiv Sena, more brutal but also more chaotic and non-

[94] The work of Harriss-White (2003) on the fascistic tendencies of the Indian state have some relevance to this question.
[95] The state they argue through its domination of the labour movement, and its control of capital through large stakes in nationalised industries is a third actor, and in many ways politically more potent than the other two, capital and labour.
[96] There are various perspectives on this point (Patnaik 1986; Byres 1997; Chibber 2003).

developmental. Its objectives were vaguer, but could be interpreted as attempting to strengthen a core coalition by identifying enemies of the people, so that the core coalition could implement policies that may otherwise have been impossible.

There is good reason to believe that by the 1990s repression was less necessary to implement neo-liberalising economic reforms. Mitra (1977) and Bardhan (1984/1998) developed political economy frameworks in the context of what they argued was a relatively clear dominant coalition. Mitra arguing the dominant coalition comprised a rural and business oligarchy, to which Bardhan added the civil service/ professional classes. Both authors have since noted that there has been greater diversity, fluidity and fragmentation of the dominant coalition (Bardhan 1984/1998; Mitra 2005:xvii). Industry is less dominated by a few large houses and rich farmers are branching out into private trade, commerce, and small industry (particularly food processing and rice mills). The share of corporate paid up capital owned by private companies stopped declining trend relative to government companies in the 1980s and began to climb after 1987. Private sector capital surpassed public sector capital in 1996 for the first time since 1972 (Pedersen 2000:268). New enterpreneurs have emerged from professional/ bureaucratic families (Bardhan 1984/1998). In the 1960s most private investment was controlled by MNCs, or by Marwari, Gujarati and Parsi enterprises. The bourgeoisie fragmented over the next subsequent decades as a regional business class from outside the traditionally dominant houses of north and north-west emerged (Jenkins 1999). In sectors such as sugar, textiles, steel, cement, chemicals, fertiliser regional business groups have been able to make substantial headway in reducing the relative presence of national big business groups. Newly emergent regional groups have been less focused on the central government in New Delhi and invested in regional political parties and entered partnerships with foreign capital (Basu 2000). The industrial structure has also witnessed the emergence of a technologically more advanced segment of small, medium and large industries that have grown relative to traditional industries. The Federation of Indian Chambers of Commerce and Industry (FICCI) is still dominated by eastern and Marwari national capital and by traditional engineering sectors. Regional capital has been increasing its profile in the Confederation of Indian Industry (CII) and Associated

Chamber of Commerce (ACC), these federations are more technologically advanced and prone to technology agreements with foreign companies (Pedersen 2000).

Within the context of increasingly fragmenting dominant proprietary classes the collective action dilemma can be turned on its head and used to explain why organised opposition to reforms is difficult. When the state takes the lead in promoting reform it can play off interest groups against each other and use early reforms to disarm potential opponents. The fragmentation of the dominant coalition makes co-ordinated resistance to reform difficult. Early reforms of banking improved the terms and conditions of some employees more than others creating divisions within union ranks on the issue of privatisation and closure of loss making branches (Jenkins 1999). The potentially divisive policy of the liberalisation of industrial policy removed the role of the central state in deciding the location of firms. The freedom of Indian and foreign capital to seek locations offering the best returns has led to a proliferation of tax incentives, accelerated administration, and easier land acquisition at state level. Centre-state conflict has to some extent been replaced with inter-state conflict. The varying impact of reforms between states has created allies amongst those gaining and diffused the opposition of those losing. Another example is the reaction of state governments to central governments approach to freight equalisation. States close to coal and mineral deposits such as Bihar, West Bengal and Orissa supported the scheme from clear self-interest. The decontrol of prices and movement of commodities has pitted surplus against deficit states (Jenkins 1999).

5.5. Ideology

The third hypothesis is that of ideology. This section first shows that the rise of caste based politics weakened the previously dominant kisan movement by undermining its multi-caste/ multi-caste character. The growth of material rents to agriculture was replaced by ideological rents to the kisan lobby. This section will then show that the BJP is an ideological party and has retained the allegiance of supporters to a large extent

because of their belief in the over-riding ideology of the party. These factors have minimised rent-seeking and allowed the party to pursue economic liberalisation without engaging to the same extent in the costly and distracting task of buying off and co-opting opponents or the party fragmenting in opposition.

Some argue against caste remain important. Srinivas (2003) argued that the localised system of production of foodgrains and other basic necessities based on a caste-wise division of labour is fast breaking down all over rural India and likely to disappear in the near future. He argues the reduction of mass poverty and rapid economic growth will 'dissolve caste identities' (p459). The experience of Indian political economy from the mid-1980s onwards reveals a very different picture.

By the late-1980s caste was becoming an alternative source of mobilisation to the rural-peasantry identity. The 1989 victory for the Janata Dal (JD) alliance, particularly in the north of India united two currents in Indian politics, the socialist and the peasant. In office the JD focused less on class than on caste and turned to positive discrimination as its main social remedy. In 1989 V.P.Singh announced his government would implement the recommendations of the Mandal Commission and so extend public sector reservations from scheduled to 'other backward castes' (OBCs). The changing balance of the governing alliance was clear. A few days after the announcement Devi Lal resigned from the government, Lal a leading proponent of kisan politics believed Mandal would undermine kisan politics by splitting the rural alliance into high caste landowners and lower caste tenants and agricultural labourers (Jaffrelot 2003). The political salience of the OBC category increased over the 1990s. Far from dissolving caste became 'a force for political mobilisation like never before in Indian history' (Harriss-White 2003:Ch7). The rise of the OBCs is reflected in their increased share of MPs and prominent Yadav leaders such as Laloo and Mulayam Singh. In Uttar Pradesh an explicitly dalit party challenged for power (Bahujan Samaj Party) and in 1995 its leader Mayawati became Chief Minister. Yadavs and Kurmis (both OBCs) increased their share to 15% of North Indian MPs, the same as high caste Brahmins and Rajputs (Jaffrelot 2003). In Bihar alone by 1991 Yadavs represented 17.3% of the MPs and by 1995 38% of MLAs. In

1994 OBCs claimed nearly half of all ministerial posts in Bihar.

The rise of caste based politics did indeed weaken the kisan movement by undermining its multi-caste/ multi-caste character. Section 5.2.2 has shown that agricultural rents after increasingly rapidly in the 1980s declined in the 1990s. These rents were not mechanistically re-allocated from kisan to caste. There is little evidence of material benefits resulting from growing caste-based mobilisation. The rise to power of the BSP in Uttar Pradesh generated no evident benefits for the backward castes or even the Chamars, the specific constituency of Mayawati (Corbridge and Harriss 2000). Dalit parties have had little impact on public policies. In states controlled by Dalits there have been no increases in the budget for primary education (Weiner 2001). In a similar manner the ADMK has been successful in Tamil Nadu at mobilsing on the basis of a Tamil, non-Sanskritic identity but has had little impact in terms of redistribution from the rich to very poor (Harriss 2001). The 1990 Mandal Commission reserved 27% of posts in the central government and public sector for other backward castes (OBCs). The commission ignored calls that would have direct costs such as children's education and vocational training vouchers (Corbridge and Harriss 2000). The reservations have been mainly symbolic. The few jobs reserved relative to the scale of unemployment were mainly lower grade government posts. The Mandal award is estimated to affect only 50,000 jobs annually. By some estimates as many as 75% of the male population of India have been granted preferences (Weiner 2001). This was symbolic and ideological, a re-allocation of some jobs not broad social justice. The minimal material rents that were created were largely re-allocated from other castes. Mulayam Singh Yadav (and Samajwadi Party) became Chief Minister of Uttar Pradesh in 1993. His government took steps to implement the Mandal award, reservations were also introduced in the Panchayati Raj and in medical, engineering and management colleges. This led to the mass transfer of upper caste bureaucrats to non-essential posts. Under Singhs government 900 teachers were appointed, of which 720 were Yadavs. Mayawati became Chief Minister of Uttar Pradesh in 1995 with BJP support. There were some minor material benefits, grants for Dalit children to attend school and an Ambedkar village scheme. In the main again the benefits were ideological. There were frequent name

changes of public spaces, especially to Ambedkar. In the first 136 days of the Mayawati government there were 1,500 transfers of key administrative posts in Uttar Pradesh and eventually 20% of posts for inspectors of police were reserved for Scheduled Castes.

The multi-caste/ multi-class farmers lobby were undermined by the growth of caste mobilisation and kisan politics. The growth of material rents to agriculture was replaced by ideological rents to the kisan lobby.

The Congress and many other Indian political parties have traditionally taken shape as a result of aggregation and co-option. Local leaders with influence, wealth, landholdings, or prestige in a caste association were given political responsibility or put up as electoral candidates. This created a pyramid of influence. This clientelistic logic, multiplied by many times would give the party a large size. Congress was a vast organisation of vote banks, it did not mobilise so much as aggregate. To win Congress adapted itself to local power structures recruiting from among those with power and influence. Congress was not in its heyday in the 1950s and early-1960s an ideological party. Congress since the mid-1960s has endured chronic splits and rampant factionalism. The BJP by contrast has functioned since its formation in 1980 as a highly successful, disciplined party characterised by mass membership, several charismatic national leaders, a high level of ideological commitment, and a tightly knit party structure that has endured largely without splits. "The selection of leaders of shakhas as heads of local areas (nagars), of cities, and up to district level where full-time pracharaks are the organising forces, takes place on the basis of loyalty, of organisational capabilities displayed, and not least of personal relations and informal contacts with leaders higher up the hierarchy." (Hansen 1999:113). The primary difference is the very different nature in which the two parties have been constructed. The BJP is an ideologically based party.

The BJP is closely affiliated with the RSS, which was formed in 1925 as the parent organisation, together with the Vishva Hindu Parishad (VHP) they are collectively referred to as the Jana Sangh. Currently around 70% of national level BJP officials are RSS members. The RSS has traditionally given precedence to building a solid network

of activists, implanting the party at local level through social work and through propagating Hindu nationalist ideology. This was clearly distinctive and alternative model of party building to that of Congress. The party aspired to be co-extensive with society. RSS members within the Jana Sangh have consistently opposed the tactic of winning elections by co-opting local notables. The preferred technique of party building is long-term, relying on a network of disciplined and dedicated activists. The strategy has endeavoured to ensure that the parties support was a coherent constituency rather than an assemblage of individual followings belonging to particular notables.

The main asset of the RSS-BJP relationship lies in the dual power structure. This comprises the organisational leaders of the RSS and the more public BJP party members that stand for election to public office. The organisation members do not have to face the electorate or assume ministerial responsibilities. The RSS has been able to exert moral authority, especially when preventing factionalism in the party among the losers when appointments to posts of responsibility were made and contributed to the cohesion of the BJP in power. The apolitical tradition of the RSS has enabled them to diffuse factional fights between party leaders who might otherwise compete for a post or a ticket to stand in an election. The Jana Sangh has consistently promoted an ideology of the primacy of the organisation over that of individuals. The RSS-BJP arrangement explains the party's tight discipline and lack of factionalism. There is less allegiance towards personalities and clientelistic linkages. Building a personal network in the BJP has proved difficult; the party was not structured along such lines and activists are used to a majoritarian discipline. The predominant type of leadership was a tightly bound elite sharing a common doctrine and sense of discipline from the RSS. In Madhya Pradesh in the 1980s and early-1990s there were three rival candidates for the Chief Ministership - Patwa, Sakhlecha and Joshi who spent much of their time jockeying for power. It looked a little like factional fights within the Congress, and at times various of the three left the BJP to contest under another party banner. These attempts were unsuccessful, followers did not desert the BJP, the conflict was contained in the early-1990s and ultimately controlled by the dual power structure. Despite their prominence none of the three were then able to build a network of followers within the BJP that over-rode the discipline of the party

organisation (Jaffrelot 1996:Ch14).

The history of the BJP in Gujarat reveals a specific example of this general strategy of mobilisation (Shah 1998). The BJP captured power in the 1995 state election, they had a long history of pre-organisation from which they were benefiting by the 1990s. The anti-Muslim feelings which prevailed among the upper-caste Hindus - the Rajputs, Brahmins and Vania - were nurtured by the Jana Sangh in the 1960s. This tension culminated in large-scale communal riots in September to October 1969. During the 1970s there was a lull in communal riots and issues of corruption, price rises and the emergency came into prominence. The Jana Sangh students front - dominated by upper caste students – the Akhil Bharatiya Vidyarthi Parishad – participated actively in the Nav Nirman student movement in 1974. In the 1980s Gujarat was again engulfed by communal strife. Anti-reservation riots in 1981 and 1985 often turned into Hindu-Muslim riots. The Jana Sangh had fought all elections in the 1950s though with a poor performance and less than 1% of the vote. The first victory in the state assembly was in 1967, this solitary seat increased to three in 1970 and 18 in 1975. In 1980 after the re-launch of the independent party – the BJP the movement sought to spread Hindutva and forge unity among Hindus. Unity would not be possible without mobilising OBCs. Various activities were launched to unite various sects such as organising Ganesh festivals and providing welfare relief measures among BC's. Many BCs particularly Kolis, Machchis and several artisan castes have traditionally followed the path of sansrikisation. The Patidars gained land from Rajputs during freedom movement and encroached on Koli land, reducing them to the status of tenants or labourers. Both Rajputs and Kohlis needed each other, the Kolis aspire to Kshatriya status and Rajputs were in need of widening their support base to counter the dominant Patidar caste. In Gujarat there was no contradiction between the unity and interests of their caste and that of the Hindu religion. During the 1980s the BJP, RSS and VHP organised the distribution of foodgrains, medicine and clothes in tribal areas during 1985/6 drought. They also organised a rally on the birthday of Ambedkar.

Most of the new seats the BJP won in the 1996 Lok Sabha elections came from states such as Madhya Pradesh where the party was already strong. Where the party made a real break-through was in states such as Bihar, Maharashtra and Haryana, this was done in alliance with regional parties. The key was for the BJP to find regional partners capable of acting as local interpreters of the general idiom of Hindutva, to generalise Hindu communalism into local vernaculars and local symbolism and had strong bases in the low and intermediate castes. In Maharashtra this was provided by the Shiv Sena. This alliance broke the Congress hegemony in the mid-1980s to early-1990s and culminated in electoral victories in 1995 and in the General election in 1996. The alliance was successfully able to differentiate the Bahujan Samaj community and make it available to the Hindu nationalist movement. The notion of backward castes was prized away by the Shiv Sena from the Maratha designation that had provided the powerful mobilisational strategy for Congress.

The BJP is an ideological party that attempted to retain the allegiance of supporters by mobilizing their belief in the over-riding ideology of the party rather than through the distribution of payoffs alone. This strategy was less successful as the decade wore on, the BJP in power rapidly realised that the traditional Indian strategy of payoffs to client factions could not be entirely bypassed. Nevertheless, the attempt to impose a centralized ideological control over the party did for a time reduce the rate of growth of clientelist payoffs that had accelerated in India under Congress from the mid-1960s. This helped the central government to push through aspects of liberalization with less rent-seeking cost than might otherwise have been the case.

5.6. Note: A Decay of the BJP System

The unity of the BJP organisation has been under increasing strain over the 1990s (Jaffrelot 1998). Until 1993 the BJP in Madhya Pradesh was not marked by personality or factionalism. In September of that year the party did not renominate 56 MLAs, a dozen then contested as independents. This was unprecedented in the BJP though

common with Congress. As the party fell victim to growing indiscipline at the local level it became easier for state leaders to establish vertical links. The party had been in need of well-known local candidates in order to expand rapidly in new areas, tickets were given to Congress or Janata Dal members who had a personal following. These new recruits did not show the same discipline and commitment as RSS members. Most of those elected in 1990 left the BJP as soon as they were denied tickets and contested as independent candidates. There was a difficulty for the party in expanding its base and maintaining unity in its ranks. By the mid-1990s it was apparent the BJP was unable to expand beyond a north Indian heartland on its own. In the 1996 Lok Sabha and State Assembly elections the BJP won only 6% of the vote in Kerala (Chiriyankandath 1998).

As the BJP came to power in Gujarat internal power struggles within the party increased. Leaders within the party increasingly represented factions outside the party. Of the three contenders for Chief Minister (CM) Kashiram Rana represented the other backward castes (OBC), Keshubhai Patel the Patidar's and Shankarsinh Vaghela the backward castes (BC). In March 1995 Patel became CM. By September heading dissident OBC's Vaghela rebelled against the party eventually causing Patel to step down. Patterns of rent-seeking and rent allocation began to take forms familiar from the 1970/1980s Congress era. The new CM was forced to allocate rents among rivals by expanding the size of the Cabinet to 45 members. Vaghela left the party over complaints patronage resources were being denied to his followers, he formed the Rashtriya Janata Party eventually forming a government with Congress support. The party shifted away from its Hindutva agenda, softening its stance on Hindi as a national language and instead emphasising devolution and decentralisation of power. At other times it resorted to crude competitive populism, such as prior to the 1994 Karnataka state elections when the party offered to write off the principal and interest on all state loans to agriculture, the Janata had been trumped and were only offering to waive interest. The BJP seized power in Uttar Pradesh in October by breaking the Congress and BSP parties. They assumed power in the traditional way, through enticing breakaway groups from other parties through clientelist payoffs, money and cabinet portfolios. The cabinet of CM Kalyan Singh contained 91 ministers. As well as splitting other parties the BJP formed more

official alliances with smaller regional parties. An alliance with the AIDMK gave the party a foothold in Tamil Nadu and likewise the Trinamool Cong in West Bengal and Akali Dal in the Punjab. As the BJP system began to loosen there are signs that rents began increasing once more. There was a generous wage increase for government employees with the Fifth Pay commission in 1997 at central level and 1998 at state level government, costs are estimated at 1% of GDP. After falling for much of the 1990s government expenditure began rising from the late-1990s and the fiscal deficit again exceeded 10% of GDP by 2000. Fertiliser subsidies reached a 1990s low of 0.57% of GDP in 1994/95 then began creeping up again, to reach 0.75% in 1999/00. Cost recovery from power supply to agriculture reached a post-reform high of 82.2% in 1992/93 then dropped sharply to 69.8% in 2000/01 (Gulati and Narayanan 2003).

Chapter IX: Conclusion

1. Implications for Economic Principles and Policy

1.1. The Role of the State

The state is important in both initiating and sustaining economic growth. This finding is contrary to Neo-classical economics which argues economic growth is best promoted by reducing the economic role of the state through liberalisation and privatisation. Alternative works have highlighted very specific development roles for the state, subsidising firms (Amsden 1989) and overseeing a high-debt based corporate sector (Wade and Veneroso 1998). The necessary role of the state is much broader and any analysis needs to incorporate finance, production/ learning and institutions. Likewise the rigid uniformity of Neo-classical policy recommendations is fundamentally mistaken. A wide range of strategies exist to mobilise an economic surplus, to transfer it those able to invest it productively and institutions to mediate the resulting conflict. In a developing country the mobilisation and especially allocation of the economic surplus is a profoundly political question. Without a guiding role for the state there is no particular reason why the economic surplus should find its way into the hands of an emerging capitalist class. The state also has an important role in production, to promote learning and upgrading. Without a strong role for the state a firm/ industry/ developing country can seek to maintain international competitiveness in a self-destructive manner, through low wages, long hours and intensified labour. Such a pattern of growth is likely to be vulnerable to international competition and ultimately unsustainable. Competitiveness promoted through learning, upgrading, high wages and high productivity is likely to be more sustainable and also superior from a welfare perspective. The state has a crucial role in promoting the latter, high road of development.

What can be considered a good development strategy will change over time as an economy and its social structure changes and also in response to external factors. Rapid growth of public investment and import substitution may for example be a more

appropriate development strategy when the state is initiating modern industrialisation but careful management and control of FDI may be more relevant when trying to force an existing industrial sector to upgrade production. Mobilising an economic surplus and influencing its allocation has become harder as capital has become increasingly globalised and short-term. The tightening of restrictions on industrial policy through measures such as TRIPS and TRIMs by the WTO makes it harder to implement some of those measures which in the past have stimulated economic growth both in India and among developing countries more generally. Local content regulations on FDI for example were crucial in China for upgrading local producers. The growing spread of a particular form of democracy based on competitive political parties may be undermining the ability of the state to construct institutions that are repressive, inclusive or ideological.

1.2. Institutions and Conflict

Neo-classical economics does not discuss for conflict. Neo-classical economics is one of atomistic capitalism, where unions and firms act independently and are small in relation to the aggregate. These atomistic agents interact only through supply and demand which determines wages and prices. Exogenous shocks such as increases in taxation or the terms of trade do not lead to an inflationary spiral or to conflict but at the most one-off changes in wages and prices as that burden is redistributed and marginal equalities re-established (Rowthorn 1977). This thesis takes as a basic assumption that economic development is a conflictual process. The ability of the state to manage conflict is crucial in allowing the state to productively allocate rents. Institutions to control conflict can be ideological, repressive or inclusive. There is a general danger that pursuing a policy of liberalization and rolling back the state will weaken the institutions that control conflict. Reductions in subsidies for instance may violate a social contract that had previously kept a lid on conflict. A smaller state may be less able to support inclusive or repressive institutions. It should come as no surprise that measures of corruption do not decline or even increase following liberalisation (White and Harriss-White 1996). There are other dramatic and relevant examples. In the early-1990s Russia and other transition countries

were encouraged to break up their communist parties and move rapidly towards democracy in the belief that this would permit a faster pace of liberalization. The pace of policy reform was indeed rapid, a big bang instead of gradualism - the massive state sector in Russia was largely privatised over two years (Nolan 1995). Such reforms failed to generate rapid economic growth. More recent scholarship has focused on the neglect of those institutions argued to be necessary for the successful functioning of a market economy such as property rights and a stable enforceable legal framework. The dramatic disintegration of the various communist parties has been neglected as a causal factor in the economic crises. The communist parties that had previously managed conflict and ensured rents were allocated according to known rules disappeared. The problem in Russia was not so much an increase in corruption as a fragmentation in the organisational structure of rent-seeking (Shleifer and Vishny 1996) and their allocation according to political/ criminal criteria. An even more recent example was the rapid break-up of the Baath-ist party, military and security apparatus of the Iraqi state following the 2003 invasion. Iraq has mobilised massive quantities of resources via the US, and has had democratic elections. Unsurprisingly there has been a massive increase in conflict and a complete failure to allocate those resources productively.

1.3. Economic Growth and the Medium-term

There is a missing link in economic analysis, that of growth over the medium term. Growth over the short-term is highlighted by Keynesian theories of stabilisation and demand and work on the economic cycle. Studies of foreign aid and changes in the terms of trade have likewise tended to focus on their impact on growth over the short-term. There is a growing literature looking at growth over the very long-term. This has included discussion of long waves (Mandel 1978) and has broadened into an effort to separate the proximate (accumulation, technological change) from deeper causes (institutions, geography, integration) of economic growth. Much of this work has remained within the cross-country growth regression framework but extended the frame of analysis from decades to centuries. The typical experience of growth in developing

countries is however one characterized by periods of stagnation, growth spurts, structural breaks, volatility and instability. Long-term growth averages or a short-term focus would both miss this important empirical reality. A focus on the episodes of growth and stagnation that exist over the medium term allows us to more properly understand the role of the state in economic development and how that role changes over time. Considering the medium-term also allows us to focus on those factors which are relevant for the sustainability of growth. It is often forgotten how many developing countries experienced rapid economic growth between the 1950s and 1970s. As Rodrik (1999a) pointed out we talk of the East Asian miracle because that cluster of economies managed to sustain growth during and after the 1970s. This suggests that initiating growth is relatively easier than sustaining it. This thesis offers broad support for this point in particular through the analysis of the institutions necessary to manage conflict. The episodes of growth after 1951 and 1979 in India were initiated by rapid increases in public investment, in the earlier based on a surplus mobilized domestically and the second through (borrowed) international capital. The earlier growth episode was sustainable (it broke down through exogenous shocks) and relied on the Congress party as an institution to manage conflict. The creation and expansion of the Congress was a historical phenomenon rooted in the independence movement and Gandhi's leadership. The massive and ongoing efforts of the BJP to organise and expand, which has never yet reaped more than 30% of the national vote or spread significantly from a north-Indian heartland, reveal how difficult it is to create the institutions necessary to manage conflict and make growth sustainable. The episode of growth after 1979 floundered for just this reason, the state had to borrow it lacked the institutions necessary to impose the burden of higher public investment on any group. As difficult as it is to build relevant conflict managing institutions this thesis does offer some grounds for optimism. Neo-classical analysts tend to focus only on democracy and property rights as institutions that fill such a role. This thesis has argued there are a much broader range of potential institutions. Khan in various works argues that the political settlement, being a function of the underlying balance of powers in society is the fundamental constraint on long-term economic growth. Pakistan for example failed to sustain economic growth after the mid-1960s because it unlike South Korea had politically potent intermediate classes that

mobilized and forced the state to divert the surplus into unproductive rents. This thesis suggests it is possible to build institutions that can manage conflict resulting from the underlying balance of power(s) in society and allow the state to promote a development agenda. The superstructure can be manipulated to change the base.

1.4. Neo-classical Economics, the Washington Consensus and Universalism

The policies of the Washington Consensus as manifested in IMF-World Bank lending programmes with their various conditionalities have been criticised for being virtually identical across time and space. The typical package includes a mixture of liberalisation, marketisation, privatisation and reduction of budget and trade deficits. The austerity imposed on Asian countries after the crisis in 1997 was remarkably similar to that imposed on Latin America during the debt crisis and hyperinflation of the 1980s despite seemingly apparently glaring differences in their circumstances.

Neo-classical 'analysis' of liberalising reforms more often than not is simply comprised of a list of liberalisation measures with a passing mention as to whether trade and budget deficits have been sufficiently reduced. The successful outcome of reform and the degree of implementation of liberalisation are typically considered synonymous. This is demonstrated clearly by Neo-classical analysis of reforms in India with its peculiarly anaemic quality and tendency to focus nearly exclusively on the depth, pace and implementation of reforms (Ahluwalia 2002; Bajpai 2002).

There are very real methodological consequences of this analytical straitjacket, it is no accident researchers either use cross-country regressions or that the results of such studies generate such poor results. In order to run large cross-country regressions researchers tightly constrain themselves to the assumption of universalism. Conventional growth analysis assumes parameter homogeneity - parameters describing growth are identical across countries. Each individual country provides evidence that can be used to elucidate this one underlying universal economic relation. An increase in openness for example is

hypothesised to have the same effect on growth in all countries. In practise there is strong evidence to suggest the processes and components of growth do work differently over time and space (Chapter II). The implication being that cross-country growth regressions are an intrinsically poor mechanism to analyse growth and each growth experience should be treated as potentially unique i.e. as a case study. And ultimately those policies should be tailored to the specific context of different countries.

Opening up of the assumption of universalism to greater scrutiny leaves us asking why the growth process may differ. Output responses to policy changes could for example depend on expectations, and history (Pritchett 2001:274). This thesis used the case study of India in the post-Independence period. The case study approach is justified in this thesis in part initially on the assumption and later on the empirical evidence presented here that growth processes is not universal. The comparison of episodes of growth and stagnation in the post-Independence Indian economy allows us to focus on the factors that influence growth and to show how their impact has changed or remained the same over time. Despite growth being an event that takes place over time most models of growth are a-historical. Historical case studies are far richer in theoretical argument and analysis than macro-quantitative studies. The analysis of historical sequences allows historians to "bring to bear a much deeper conception of the social, political, institutional and technological sources of growth than theoretical and empirical economists are usually able to incorporate in formal models." (Temple 1999:120). The strength of comparative historical research is its particular ability to deal with multiple causal paths leading to the same outcome and different results arising from the same factor/ factor combination. In other words comparative and historically informed case studies allow researchers to question the assumption of universality rather than be forced to assume it true a priori. Chapters V and VII show that in both 1951 to 1965 and 1979/80 to 1991 rapid public investment was in large part responsible for rapid economic growth. After 1991 public investment was sharply reduced but economic growth continued at a relatively rapid rate. This example shows a very different starting point in 1991 (reduced public investment-led growth) as compared to 1951 and 1979 (increased public investment-led growth) led to a very similar outcome in terms of growth. Such examples

would be missed by cross-country growth regressions and are best left to a case study approach. The use of historical case studies in analysing growth would be a return to quite a recent tradition of using case studies. Much of the intellectual artillery for the Neo-classical counter-revolution in economics was derived from close case studies of the experience of countries that had pursued strategies of import substitution in the post-war period. Industry was argued to be high-cost, capital-intensive and generating little employment. Far from achieving self-sufficient industrialisation such countries continued a dependence on imports of capital goods and inputs (Bhagwati and Desai 1970; Bhagwati and Srinivasan 1975). This type of analysis provided important antecedents for the shift to strategies of outward orientation often as intrinsic parts of structural adjustment programmes from the 1980s onwards.

1.5. The Washington Consensus, Policy and Economic Growth

Orthodox Neo-classical economics has derived two key propositions about economic growth. The first is that policy is the most important influence on economic growth, the second that a particular set of policies – neo-liberal reforms – will generate a faster rate of economic growth. The first of these propositions is for developing countries an optimistic one. If poor economic outcomes, in particular the rate of economic growth is due to poor policies, changing policy will improve outcomes. The World Bank said of Sub-Saharan Africa,

"The main factors behind the stagnation and decline were poor policies – both macroeconomic and sectoral – emanating from a development paradigm that gave the state a prominent role in production and regulating economic activity." (World Bank 1994:20).

This first proposition, the primacy of policy distinguishes orthodox economics from the recent work by a wide range of other scholars focusing on factors such as whether countries are landlocked or have a tropical climate, the nature of the colonial state,

endowments of land and natural resources, power relations in society, and the unequal status of a developing country in the world economy. This thesis supports the orthodox Neo-classical view that policy is important but disagrees with the nature of what constitutes desirable policies. Rodrik (2004) showed how the most successful growth performers have followed very heterodox policies in their growth take-offs. This thesis takes this further and has shown how policies have changed within a single country over time. There is no single universal policy prescription to promote growth, even in one country. In India since 1951 the emphasis on mobilising resources through taxation, foreign capital flows and domestic savings has changed significantly over time. Just as the means by which resources are allocated has varied, whether through public investment, subsidies, state control or liberalisation of the banking system, foreign capital inflows, or measures to influence private sector profitability. Desirable policies are a question of history and political economy not a product of the universalising assumptions of Neo-classical economics.

This thesis shows that the other policies of the Washington Consensus and later Good Governance agenda have not been of first order importance in India in determining patterns of growth and stagnation over the medium-term. The rapid expansion of public ownership in the 1950s is associated with an episode of growth, the relative increase in the share of private ownership in the 1990s is associated with sustained not increased growth. Liberalisation of the domestic economy and international trade after 1991 is not associated with increased growth. Growth fluctuates in clear episodes of growth and stagnation in post-independence India despite an enduring democratic political regime and reasonably well-protected property rights. Rising levels of corruption after the mid-1960s are associated with an episode of stagnation between 1965 and 1980, but also with increased growth after 1979 and sustained growth after 1991 (Kumar 1999a+b). This supports the more general findings of Rodrik (2003, 2004) who argues episodes of growth are commonly associated with heterodox policy reforms, that trade openness is not associated with avoiding episodes of stagnation (Rodrik 1999a), and also that neo-liberal reforms are rarely associated with an episode of growth (Hausman et al 2004; Chang and Grabel 2004).

2. Extensions and What the Thesis Doesn't Cover

2.1. Extensions and a Research Agenda

Within a large federal country such as India episodes of growth and stagnation could have been analysed at the state level (cross-section) as opposed to the all-India level (time-series). Chapter III noted that there are indeed large variations in the growth performance, in both averages and volatility across time and space among states in India. Among those interesting episodes are Kerala, where despite high levels of education and health (theoretical pre-requisites of growth) growth was only 2.5% between 1980 and 1992, then suddenly jumped to over 5% p.a. during the next six years. Other structural breaks in growth have included Gujarat in 1973/73, West Bengal in 1982/83 and Karnataka in 1985/86. Sudden growth slowdowns have included Uttar Pradesh and Punjab in 1981/82. This thesis made only a brief note of such details, and did not investigate further owing to the matter of space. A future research agenda would be to decentralise the analysis of this thesis and focus on episodes of growth and stagnation at the state level.

The case study approach used here also lends itself both to specific comparisons and also a much broader cross-country analysis. Closer studies of episodes of growth can be useful in establishing the conditions that initiate such episodes. Khan (2000d) argued that there were more similarities than differences between the policies that generated rapid growth in South Korea after 1961 and Pakistan after 1958. Despite having very different policy environments, by the late-1960s both India and Pakistan had regressed to a 'South-Asian growth norm'. Also interesting are the comparative performance of countries experiencing the same exogenous shock, Chile and Zambia to declining copper prices in the 1970s, Korea and Brazil to the 1980s debt crisis, and Indonesia and Malaysia to the

1997 Asian crisis. As well as the microscope there is scope for stepping back and looking at the issue of episodes of growth and stagnation in a cross-country perspective. The typical growth experience of developing countries is characterised by periods of stagnation, growth spurts, structural breaks, volatility and instability. There are numerous growth accelerations worldwide since the 1950s (Hausman 2001; Rodrik 2003) and many specifically within Africa (Berthelemy and Soderling 2001, Mkandawire 2001). A second research extension of this thesis would be to make a comparative analysis of such episodes not over time in one country (as in this thesis) but rather across countries.

2.2. What the Thesis Doesn't Cover

The role of the state in fifty years of an extremely large developing country is a big topic. This thesis has built a political economy framework which is capable of explaining the reasons for growth over the medium-term, focusing on the role of the state. For each of the four episodes of growth and stagnation it shows how they can be better explained by this framework than any other existing framework. The framework comprises three key roles of the state – finance, production and institutions. These three roles have significant explanatory power to successfully explain growth. Other factors could have been considered that may be of relevance in explaining episodes of growth and stagnation, but would have added more to the complexity of the framework than to its explanatory power.

Demography is not considered here. Bloom and Williamson (1998) show how East Asia's demographic transition resulted in its working age population growing more slowly than overall population prior to 1965 and at a faster rate between 1965 and 1990. The demographic burden and bonus over these two periods they find contributed substantially to economic stagnation and the subsequent 'economic miracle'. Weather and other exogenous factors could have been added as a fourth factor to the framework. Virmani (2004b) examines the sources of TFP growth in India and notes that his is

probably the only study to add weather to the production function. India is a monsoon economy where agriculture takes up a large share of GDP, sharp fluctuations in agricultural output have been common. Many believe the two droughts in 1965 and 1966 were causally related to the onset of stagnation after 1965 (Chapter VI). The (external) terms of trade have likewise been used to explain the onset of stagnation and growth in other contexts. Volatility in the terms of trade can be bad for growth (Lutz 1994) and a natural resource export boom can initiate more broad based growth (Sachs and Warner 1999). Exogenous shocks were not included for several reasons. Firstly there is no clear theory or evidence from the literature regarding their influence on medium-term economic growth. Secondly, there is good reason in both theory and evidence (Rowthorn 1977; Rodrik 1999) which informs the more general argument in this thesis that it is not exogenous shocks so much as the quality of domestic institutions to manage the inevitable conflict associated with allocating the burden of adjustment that is important for economic growth. Various scholars have argued that the nature of the bureaucracy is a crucial variable (Leftwich 2000; Schneider 1999). Specifically in India it has been argued the autonomy of the bureaucracy has changed/ declined over time and this can help explain in particular slower economic growth after the mid-1960s (Bardhan 1984/1998; Chibber 2003). The bureaucracy could have been a fourth component in the framework but equally can be seen to be subsumed by the other three components. A developmentally orientated bureaucracy would be one best able to mobilise resources (finance), allocate them to those willing and able to invest them productively (production) and manage the conflicts associated with development (institutions) (Khan 2001b).

This thesis deals with the notion of sustainability in a very specific sense. There are three episodes of growth and one episode of stagnation examined here. Sustainability is defined as whether the structure of finance, production and institutions responsible (for growth or stagnation) are sustainable into the near future. The episode of growth after 1979 was judged not sustainable because it was based on a rapid build-up of high-cost debt and there existed no institution capable of allocating the financial burden of expansion among domestic groups. An extension of the analysis would be to consider

what makes growth sustainable over the long-term. Is it the case as Rodrik argues in various papers that an economy needs to converge to neo-liberal institutions such as protected private property rights and democracy? Or else is an inclusive political party such as Congress in the 1950s that successfully managed conflict a viable long-term proposition in a heterogeneous society such as India? Does there exist the policy space in the contemporary world economy for alternatives to the neo-liberal development models to be viable (Chang and Grabel 2004). This thesis, again because of its focus on the (neglected) medium-term does not draw general conclusions on how the nature of a viable framework (finance, production, and institutions) may change systematically during the course of development. It may be the case for example that the state is most important in mobilising resources, co-ordinating investment, providing a vision, managing conflict during the transition from a rural to an industrial economy (Chang 1999). But, the state should retreat to more indirect management such as enforcing conditions on FDI, and promoting technological change and productivity growth as an economy begins to catch up with the developed world. Repressive institutions for example became less and democracy more viable in South Korea into the 1980s with the growth of an increasingly mobilised middle class. Inclusive institutions such as the Congress party in India may become less necessary as the social structure undergoes a more complete transition to that of a capitalist society. Bardhan (1984/1998) argued the structure of three dominant proprietary classes he identified that made political and economic management so difficult in India existed specifically in the context of an incomplete transition to capitalism. Others have for example argued that the political and economic relevance of caste will disappear with capitalist economic growth (Srinivas 2003) and others that the middle class is increasingly becoming a cultural hegemon to which people increasingly either belong or aspire to (Fernandes 2006). The means by which the state can influence or directly mobilise the surplus may also change systematically over time (Gerschenkron 1966). This thesis argues that an episode of growth will be initiated when the state is able to mobilise (finance) and allocate (production) the economic surplus to those able to invest it productively and can construct institutions to manage the conflict associated with development. This thesis is comprised of four case studies of episodes of growth and stagnation it does not try to

construct a general theory of how such a viable 'structure of accumulation' can be created (an episode of growth) and how it may be undermined (an episode of stagnation). The social structures of accumulation approach (SSA)[97] offers the basis for constructing such a theory. This has been done at the local level in India (Harriss-White 2003) but not yet at the aggregate level.

[97] "The social structures of accumulation (SSA) approach provides a new way to analyze the structure and development of capitalist economies and societies. The term SSA refers to the complex of institutions which support the process of capital accumulation." (Kotz et al 1994:1). A SSA includes all the institutions that impact upon the accumulation process. Among most important are the systems ensuring money and credit, the structure of the class struggle and pattern of state involvement in the economy. The SSA helps create the social stability required for investors to make reasonably determinate calculations. Without such stability investors may prefer financial over productive accumulation. There are various forms of class conflict under capitalism and also conflicts between different sections of the capitalist class, conflicts over the distribution of the surplus value and also conflict with capitalists and various classes abroad.

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